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TITLE: PREPARATION OF INACTIVATED HTLV-III AND STLV-III WHOLE VIRUS PILOT VACCINES

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The purpose of this contract was to provide specific reagents and services supporting programs to prevent or treat HIV-1 infection and disease. A major requirement was the preparation of inactivated, whole virus for evaluation as a possible vaccine. Selected strains of HIV-1 and SIV-1 were adapted for optimum production, concentration and partial purification, and effective inactivation. Approximately 28 mg of HIV-1_{IIIB} and 70 mg of SIV-1_{MNE} (E11S) were prepared for this program. In addition, five selected strains of HIV-1 (DOD US clinical isolates) were transmitted to one of five different established cell lines and 73 biological clones were prepared. Also, five isolates of HIV-1 (Northern Thailand) were amplified in human peripheral blood lymphocytes or monocyte-macrophages and were tested for transmission into established cell lines including a chimpanzee T-cell line. The possibility of their use to infect nonhuman primates, e.g., the chimpanzee, will require further experimentation. Several HIV-1 and SIV-1 envelope proteins in their native, non-denatured configuration were prepared. These included 0.512 mg HIV-1 gp120, 1.967 mg HIV-1 gp160, 0.825 mg SIV-1 gp120 and 1.823 mg SIV-1 p24. Other immunological

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19. (continued) reagents prepared included monoclonal antibodies specific for 14 different SIV-1 envelope or gag epitopes. Finally, sixteen nonhuman primates belonging to either Macaca nemestrina or Macaca fascicularis species were housed and experimentally manipulated.

FOREWORD

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I. INTRODUCTION

In the decade since the causative association between HIV-1 and AIDS and other related disorders was conclusively demonstrated, HIV-1 infection has become a global health problem of epidemic proportions. Estimates of up to 20 million HIV-1-infected individuals and consequential disease manifestations have been reported in approximately 200 countries. It is also evident that these numbers will continue to escalate without effective methods of prevention or intervention. Included among the many possible prophylactic or therapeutic approaches to prevent or treat HIV infection is the development of safe and effective vaccines. The primary focus of this program was to provide DOD scientists reagents and services to assist in their vaccine program.

Multiple approaches have been taken in efforts to develop candidate vaccines for HIV. A major requirement of this procurement contract was the development and provision of well characterized inactivated, whole (intact) virus, i.e., SIV-1, for evaluation in a nonhuman primate model, and HIV-1 for further analysis as a possible vaccine. While many investigators have expressed skepticism that an intact HIV-1 vaccine would be aesthetically acceptable for human use, the success of this inactivated, whole virus approach in other viral vaccine systems and the need to explore all possible methods to invoke an effective humoral and cellular immune response prompted the need for these reagents. The preparation of inactivated whole virus stocks involved the: (1) selection of specific strains of virus, (2) adaptation or transmission of virus into established cell lines to facilitate production of a standardized source of high titer virus, (3) manipulation of growth conditions to optimize virus production in serum-free conditions (to facilitate concentration and avoidance or removal of extraneous proteins, (4) evaluation of methods to concentrate and partially purify virus that minimizes disruption or loss of intact virions while maintaining sufficient removal of cells, or cellular components, (5) evaluation and selection of methods to inactivate virus insuring total loss of infectious virus while maintaining optimum antigenicity of structurally intact viral proteins, and (6) evaluation of methods of storage of virus before and/or following inactivation, again, maintaining antigenicity.

In addition to several batches of whole inactivated, HIV-1 and SIV-1, several established cell lines and their biological clones infected by one of several clinical isolates of HIV-1 provided by DOD scientists, were prepared. These resulted from experiments to establish these selected strains of HIV-1 in cell lines for the preparation of high titer, well characterized, sources of virus for use in vaccine development. The preparation of these reagents involved the: (1) expansion and characterization of five HIV-1 isolates in PBMC, (2) screening of potential target cell lines for susceptibility to infection, (3) transmission of HIV-1

isolates into selected cell lines, and (4) preparation and characterization of biological clones of these infected cells lines.

The preparation of specific viral reagents also extended to the initiation of studies with several isolates of HIV-1 from Northern Thailand. The goal was to transmit these to established cell lines and for their selection or adaptation suitable for the infection of chimpanzees or other nonhuman primates. This contract request was initiated toward the end of the contract period and was not completely fulfilled. However, progress was made in: (1) the amplification and characterization of five HIV-1 Northern Thailand isolates in normal PBMC; (2) attempts to transmit to established human T-cell lines with the expectation that the adaptation to established cells could broaden the host range of successful virus isolates; and (3) attempts to transmit virus to a transformed chimpanzee T cell line (transformed by HTLV-I) with the anticipation that virus produced by these cells would be better adapted for the infection of chimpanzees.

During the course of this contract, other specialized reagents and services were requested and provided. Because of DOD scientists' desire to evaluate the type and extent of immune response of HIV-1 and SIV-1 proteins, presented in their "native" configuration, native HIV-1 and SIV-1 envelope proteins secreted by appropriately manipulated infected cells were prepared. ABL scientists had previously developed unique systems for the production of these reagents for some strains of HIV-1 and SIV-1. Several of these reagents were provided. In addition to providing reagents from these established cultures, progress was made toward the provision of similar proteins from other selected viral strains. This involved: (1) the transmission of selected viral strains into cloned cell lines and selecting these secretions in native viral proteins; (2) extensive cloning of these cells to select those secreting proteins of interest in high titer; and (3) the purification of these proteins using procedures that avoided their denaturation, i.e., preserve their "native" configuration.

Several monoclonal antibodies against specific, selected, viral proteins were provided for use by DOD scientists for the detection and characterization viral proteins.

During the last year of this contract, DOD scientists requested that ABL become involved in the evaluation of nonhuman primate models, other than the chimpanzee, to evaluate methods to prevent HIV-1 infection. For this purpose several animals belonging to either the *Macaca nemestrina* or the *Macaca fascicularis* species were obtained, quarantined, and exposed to selected HIV-1 isolates. These animals were monitored carefully for clinical changes (pathological consequences of infection) and samples were

collected on a very rigorous schedule for evaluation of infection and immune responses.

II. DELIVERABLES

A. Inactivated, Whole Virus

The preparation of inactivated, whole virus vaccine stocks required a substantial effort to, among other things: determine optimum conditions for culturing cells to yield high levels of virus; evaluate methods for viral concentration/partial purification to minimize loss of intact virions; evaluate methods for the inactivation of virus to achieve optimum, intact, virus recovery while insuring complete inactivation of infectious virus; and to evaluate storage conditions of virus, before and/or following inactivation, to optimize stability and recoverability of intact virions and antigenic determinants. These developmental studies were conducted using several strains of SIV-1 and, primarily, $HIV\text{-}1_{IIIB}$.

Several procedures were used to monitor viral activity/antigenicity. These included monitoring infectious virus using primary lymphocytes or established cell lines. This should be an ultimate measure of virus intactness, e.g., loss of infectious titer likely corresponded with loss of envelope. Detectably infectious virus was also used to monitor inactivation procedures. Existing antigen capture systems for detecting HIV-1 and SIV-1 p24 (OTC-Diagnostica) proved extremely useful in monitoring virus during experiments to optimize viral production and concentration/purification and to monitor the effect of various procedures (especially inactivation procedures) on detectable viral antigens. An antigen capture procedure for the detection and quantification of HIV-1 gp120 was also developed during the course of, but independent of, this contract and proved to be extremely useful for the monitoring of envelope proteins during various growth, concentration, and inactivation procedures. Likewise, a RIPA procedure, developed using materials generated by this contract, was used to monitor and quantitate SIV-1 gp120. Assays to detect reverse transcriptase activity were also routinely conducted to assess virus production.

As expected, individual strains or sources of virus varied greatly in their physical properties and stability under various conditions for growth, concentration, inactivation, etc. Once a source of virus was identified, experiments were conducted to adapt their production to "serum-free" conditions. The use of defined growth media, such as RPMI 1640 supplemented with HB-104 (Irvine Scientific) supplement, was found to be effective in supporting virus production under conditions which minimized the presence of extraneous, non-characterized proteins, etc.

Several methods were tested and compared for the concentration and partial purification of these viruses in an attempt to facilitate the preservation of intact virus, especially envelope proteins. These included: direct pelleting; banding in sucrose or its derivative metrizamide; passing through glycerol cushions; ultra-filtration (Pellicon, Amicon); and column chromatography, e.g., Sepharose, Matrix Cellufine Sulfate, and combinations of the above methods. Various strains of virus demonstrated a wide range of stability under the conditions tested. However, the column chromatographic and glycerol cushioning procedure yielded the least promising results with all strains examined. Details of these evaluations were described in individual quarterly reports.

Methods evaluated for the inactivation of virus concentrated on those that cross-link proteins, i.e, formaldehyde, and those that cross-link genomic RNA, i.e. Psoralen. All procedures were carefully monitored to insure inactivation of virus and for the preservation of detectable viral antigen determinants. Formaldehyde was very effective in the inactivation of infectious virus, and at concentrations less than or equal to 0.1% did not appreciably interfere with the detection of gp120 or p24 by antigen capture assays or RIPA. Psoralen derivatives AMT and 8-MOP were both effective for the inactivation of these viruses, with AMT having an inactivation rate of ~1.7 logs/min and 8-MOP ~0.17 logs/min. Psoralen did not appreciably affect the ability to detect gp120 or p24 under any of the conditions tested (also see quarterly reports).

The strain of SIV-1 chosen for preparation of vaccine was $SIV\text{-}1_{MNE}$ (E11S), which proved to be relatively stable in the various procedures investigated. Most studies of HIV-1 were performed with $HIV\text{-}1_{IIIB}$, which proved to not be a particularly stable strain. Several batches of inactivated virus were prepared. A list of these preparations, including their designation, methods of concentration and inactivation, and their protein concentrations, is included in Table 1. An inventory of these and other reagents prepared and stored in liquid nitrogen is given in Appendix A.

B. Transmission of Selected Clinical Isolates of HIV-1 to Established Cell Lines

In addition to the preparation of stocks of $SIV\text{-}1_{MNE}$ (E11S) and $HIV\text{-}1_{IIIB}$, DOD scientists requested that selected isolates of HIV-1, obtained from several of their HIV-1-positive patients, be prepared for possible use in the preparation of an inactivated, whole virus vaccine. For this purpose, five isolates were obtained and amplified by growth in normal PBMC and primary macrophage cultures. These expanded stocks of virus were then

Table 1
Deliverables

Item	Characteristics	Status
I. HIV-1 (Inactivated Whole Virus)		
• $HIV\text{-}1_{IIIB}$ psoralen/UV Inactivated 3 x 1.0 ml	Sucrose banded, 0.3 mg/ml total protein	Delivered to Dr. T. Van Cott April 21, 1992
• $HIV\text{-}1_{IIIB}$ psoralen/UV Inactivated 5 x 1.0 ml (L93-21 #2 II, 3/8/93)	Sucrose banded, p24=~14 μg/ml, gp120=170 ng/ml, ~0.6 mg/ml total protein	Delivered to Dr. T. Van Cott April 27, 1993
• $HIV\text{-}1_{IIIB}$ psoralen/UV Inactivated 3 x 1.0 ml (L93-69 #1)	Pellicon glycerol concentrated, p24=14 μg/ml 1.0 mg/ml total protein	Delivered to Dr. T. Van Cott July 29, 1993*
• $HIV\text{-}1_{IIIB}$ psoralen/UV Inactivated 16 x 1.0 ml (L93-69 #2)	Pellicon glycerol concentrated, p24=8 μg/ml, gp120=125 ng/ml, 1.0 mg/ml total protein	Delivered to Dr. T. Van Cott July 29, 1993*
• $HIV\text{-}1_{IIIB}$ psoralen/UV Inactivated 5 x 1.0 ml (L93-21 #1 IIC, 2/26/93)	Sucrose banded (>10^5) $TCID_{50}$ before inactivation 1.0 mg/ml total protein	Stored in liquid nitrogen (LNN-11D)*

(27.9 mg total inactivated HIV-1 prepared)

*See attached Inventory (Appendix A)

Table 1 - Continued
Deliverables

Item	Characteristics	Status
II. SIV-1 (Inactivated Whole Virus)		
A. $SIV\text{-}1_{MNE}$ (E11S) Psoralen Inactivated		
• 3.0 ml	50-75 μg/ml total protein	Delivered to Dr. T. Van Cott 1/15/92
•1.0 ml	0.5 mg/ml total protein	Delivered to Dr. T. Van Cott 2/19/92
• 0.1 ml x 2 (1/24'92) (L92-4 IA-2)	1 mg/ml total protein	Stored in liquid nitrogen (LBI2-15A)*
• 1.0 ml x 4 (1/24/92) (L92-4 IA-2)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15A)*
• 0.1 ml x 2 (1/24/92) (L92-4 IB-2)	1 mg/ml total protein	Stored in liquid nitrogen (LBI2-15A)*
• 0.1 ml x 2 (1/24/92) (L92-4 IB-2	1 mg/ml total protein	Stored in liquid nitrogen (LBI2-15A)*
• 1.0 ml x 4 (1/24/92) (L92-4 IB-2)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15A)*

*See attached inventory (Appendix A)

Table 1 - Continued
Deliverables

Item	Characteristics	Status
B. SIV-1_{MNE} (E11S) Formalin Inactivated		
• 3.0 ml	50-75 μg/ml total protein	Delivered to Dr. T. Van Cott 1/13/92
•1.0 ml	0.5 mg/ml total protein	Delivered to Dr. T. Van Cott 2/28/92
• 0.5 ml (non inactivated) sucrose banded	1 mg/ml total protein	Delivered to Dr. T. Van Cott 3/25/92
• 1.0 ml x 15 (2/26/92) L92-4 IB-1	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15F)*
• 1.0 ml x 14 (2/26/92) (L92-4 IA-1)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15F)*
• 1.0 ml x 39 (2/12/92) (L92-10 IA-4)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15F)*
• 1.0 ml x 20 (2/12/92) (L92-10 IIA-5)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15F)*
• 0.3 ml x 3 (2/12/92) (L92-10 IIIA-4)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15A)*
• 1.0 ml x 7 (2/12/92) (L92-10 IIIA-4)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15C)*
• 1.0 ml x 13 (2/12/92) (L92-10 IIIA-4)	0.5 mg/ml total protein	Stored in liquid nitrogen (LBI2-15F)*
• 1.0 ml x 10 (3/25/92) (L92-10)	1.0 mg/ml positive control	Stored in liquid nitrogen (LBI2-15A)*

(70.85 mg inactivated SIV-1 prepared)

*See attached inventory (Appendix A)

used in experiments to infect selected, established T- and B-cell lines in order to provide a stable, standardized source of high-titer virus. For this purpose, eleven cell lines were evaluated and six were productively infected by one or more of the HIV-1 isolates. Once an infected cell line was identified, attempts were made to prepare biological clones of these cells using single cell cloning techniques. Seventy-two clones of cells producing one of the selected HIV-1 isolates were prepared and are summarized in Table 2. Also the location and number of individual freezes of these cells is shown in the liquid nitrogen inventory found in Appendix A.

C. Propagation of HIV-1 Isolates from Northern Thailand in $CD4^+$ Human Peripheral Blood Cells and Permanent Cell Lines

The ultimate goal of this project was selection/adaptation of HIV-1 isolate(s) recovered from infected individuals in Northern Thailand, which would be suitable for use as a challenge virus for evaluation of HIV-1 candidate vaccines in chimpanzees or other nonhuman primates. The high rate of HIV-1 seroconversion in the Thailand population and administrative organizations of the health-care system in Thailand provides ideal conditions for field trials of HIV-1 candidate vaccines in that country. A major obstacle in the evaluation safety and efficacy of HIV-1 candidate vaccines is the lack of a suitable in vivo model system. The only currently available model for HIV-1 vaccine studies, namely the chimpanzee-$HIV\text{-}1_{IIIB/Lai}$ system, has significant limitations because of low host susceptibility and the relatively rarity of serological type of the virus ($HIV\text{-}1_{IIIB/Lai}$). Moreover, the DNA sequencing analysis of the Northern Thailand HIV-1 variants suggests further limits on the use of the available chimpanzee model. Biological properties of the $HIV\text{-}1_{IIIB/Lai}$ isolate suggest that a selection/adaptation process of a suitable HIV-1 isolate would be necessary. For example, properties of the $HIV\text{-}1_{IIIB/Lai}$ isolate suggest that an HIV-1 candidate for infection of chimpanzees should have the following characteristics: (a) a high replicative potential in host cells; (b) be able to infect both T cells and macrophages, including chimpanzee macrophages; and (c) be able to productively infect a wide range of $CD4^+$ human neoplastic cell lines.

1. Expansion of Original Stocks of HIV-1 Northern Thailand Isolates

We have expanded the original stocks of HIV-1 isolates in the first phase of this project. As listed in Table 3, out of six original HIV-1 Northern Thailand isolates provided to us, five isolates were propagated in T-cell cultures initiated from peripheral blood mononuclear cells (PBMC). Two of these viral isolates, CM240A and CM245A, were also successfully grown in

Table 2

HIV-1 WRAIR Clinical Isolates
(Transmitted to established cell lines for biological cloning)

Isolate Number	Cell Line						Biologically Cloned Cell Lines				
	A SupT1	B CEM-SS	C H9	D A3.01	E ET62	F AA2	A SupT1	B CEM-SS	C H9	E ET62	F AA2
	Number Frozen Ampules						No. Clones (No. Frozen Ampules)				
1. 3535	6	6	6	4	12	4	3 (17)	3 (13)	5 (20)	30 (96)	2 (15)
2. 3536	4	2			4	4	3 (10)			5 (22)	
3. 3538	4	4	2	4	6	2	2 (9)	1 (2)		6 (29)	
4. 3539					4					6 (50)	
5. 4157B	4				18	49	3 (7)			1 (30)	3 (7)

All in liquid nitrogen - See attached inventory (Appendix A)

Table 3

Propagation of HIV-1 Isolates from Northern Thailand in Human PBMC[1]

Virus Designation	Number of Ampules Received	Tested	Expanded in PB T-Cells	MM[2]	Inventory Number of Ampules Original	Left	New Stocks
CM 236B[3]	4	0	Not Tested		4		0
CM 238	4	2	Yes	No	2		6
CM 240A	4	1	Yes	Yes	3		10[4]
CM 241A	4	2	Yes	No	2		6[5]
CM 244 A.3	4	1	Yes	No	3		6
CM 245 A	4	1	Yes	Yes	3		18[6]

1 Peripheral blood mononuclear cells
2 Monocyte/macrophages from human peripheral blood
3 This HIV-1 isolate was tested by DOD scientists
4 Two ampules of virus supernatant harvested from MM are also included
5 One ampule of 100X concentrated culture fluids
6 Two ampules of virus supernatant grown in MM and one ampule of 100X concentrated culture fluids containing ~0.3 ml are included.

monocyte/macrophage (M/M) cultures from primary PBMC as well. Culture fluids from infected T-cell or M/M cultures positive by antigen capture (AC) and/or reverse transcriptase (RT) assays were frozen as new viral stocks for further virological studies. A minimum of six ampules containing 1.5 ml of culture fluid or infected viable cells from each viral isolate were frozen and stored in liquid nitrogen. The HIV-1 isolate termed CM236B was not included in this initial experiment because this viral isolate had been previously studied by DOD scientists. It was shown that this particular isolate exhibited very limited growth potential in $CD4^+$ neoplastic cells. We have preserved at least two to three original ampules from each viral isolate. Expansion of the original viral stocks enables us to proceed with planned experiments.

2. Kinetics of Virus Production by T-Cell Cultures Infected with Isolates from Northern Thailand

It was previously reported that some HIV-1 isolates, particularly the established "laboratory" isolates (e.g., $HIV\text{-}1_{IIIB/Lai}$) exhibited growth potential not only in CD^+ permanent neoplastic cell lines but can generate in vitro a so-called "chronic infection" in normal T-cell cultures as well. This broader growth potential of a particular viral isolate is reflected by the kinetics of virus production.

During expansion of original viral stocks, the kinetics of virus production by T-cell cultures from PBMC infected by four HIV-1 isolates were followed for approximately two weeks. Virus production was assessed by determining the amount of HIV-1 p24/ml of culture fluid using an antigen capture assay (shown in Table 4, Exp. #1). These preliminary results suggested that differences in kinetics of virus production between the HIV-1 isolates from Northern Thailand might exist.

T and M/M cell tropism was also evaluated in two isolates, CM240A and CM245A. As shown in Table 4 (Exp. #2), both viral isolates exhibited significantly higher replicative capacity in T cells than in monocyte/macrophages. However, these two HIV-1 isolates can replicate productively in both cell types.

3. Productive Infection of Permanent $CD4^+$ Lymphoid Cell Lines

As mentioned above, the $HIV\text{-}1_{IIIB/Lai}$ isolate is the only available viral isolate that is suitable for vaccine studies as a challenge virus in the chimpanzee. This isolate has a very broad host range and high replicative potential, and can readily infect various $CD4^+$ neoplastic cell lines which produce high levels of virus. Moreover, the availability of permanent virus-producer

Table 4

Kinetics of Virus Production by PBMC-Derived T-Cell Cultures After Exposure to HIV-1 (Northern Thailand) Isolates

Virus Designation	Days Following Infection: Experiment #1[a] 4	9	12	15	Experiment #2 7[a]	15[b]
	p24 (ng/ml)[c]				RT Activity (cpm/ml)[d]	
CM238	NT[e]	135	23	14	NT	NT
CM240A	14	95	75	70	6.2×10^5	2.2×10^4
CM241A	L1	35.7	66	NT	NT	NT
CN245A	41	76	60	35	7.1×10^5	1.9×10^4

a Culture fluids harvested from T-cell cultures.
b Culture fluids harvested from monocyte/macrophage cultures.
c Antigen capture assay.
d Reverse transcriptase assay.
e Not tested.

cell lines represents a valuable source of viral reagents, e.g., viral envelope, gp120, in its native form. Since host-range and replicative potential of a viral isolate could provide some information relating to is capacity infect host (T and M/M) cells in other species (chimpanzees) and/or could lead to the adaptation of virus for this purpose, infection of permanent $CD4^+$ lymphoid cell lines was attempted.

Two permanent $CD4^+$ lymphoid cell lines, H4 and AA2, were used in these experiments. A cloned T-cell line, H4, was derived from the HUT78/HT cell line. This cell line and its clones (H4, H9, etc.) have characteristics of mature $CD4^+$ T cells. The AA2 cell line is of B-cell origin and can be productively infected with some HIV-1 isolates that exhibited limited capacity to infect some other neoplastic cell lines which are permissive for laboratory HIV-1 isolates ($HIV\text{-}1_{IIIB/Lai}$, RF, MN, etc.). Two approaches were used for infection: (1) inoculum prepared from a single isolate, CM245A; and (2) inocula prepared from a pool of three different HIV-1 Northern Thailand isolates. The rationale for this "pooling" approach was as follows. It enables the determination of the presence of a suitable isolate for growth in permanent $CD4^+$ cell lines more efficiently, it increases a possibility for complementation between viral isolates resulting in increased replication, and it could generate recombinant viral progeny with a higher replicative potential. The evidence for recombination between viral isolates with low replicative potential which resulted in generation of new viral progeny with high replicative potential was demonstrated by Fenyö and co-workers at the Karolinska Institute (Weitan et al., AIDS Res. Hum. Retroviruses 9:321, 1993).

The results from infection of H4 and AA2 cell lines are summarized in Table 5. The infection of H4 cells with the CM245A isolate resulted in very low and "short-lived" virus production. By two weeks post-infection, the culture fluids harvested from H4 cultures were negative for HIV-1 p24. In contrast, when pooled culture fluids were used for infection, low but detectable virus production was observed for up to two months. The highest yield was detected approximately two weeks after exposure of these cells to viral inoculum prepared from T-cell cultures infected with CM240A, CM244A and CM245A. The culture fluid from the infected H4 cells was also positive for RT activity. Similar experiments were performed using viral inoculum prepared from pooled culture fluids harvested from CM238, CM241A and CM244A cultures. In this experiment, the presence of HIV-1 p24 could be detected for more than two weeks. This AA2 culture became negative for detectable HIV-1 p24 by 25 days of exposure. The AA2 cells from this HIV-1 p24 negative culture were re-exposed to virus inoculum prepared from CM240A and CM245A isolates which were used for productive infection of H4 cells. In this case the presence of HIV-1 p24 could be followed up to 42 days after

Table 5

Productive Infection of Permanent CD4+ Lymphoid Cell Lines
Exposed to HIV-1 Northern Thailand Isolates

Cells	Virus Designation	Days following infection						
		6-8	10	15-17	25	42	45	58
		p24 (pg/ml)						
1. H4[1]	CM245A	121[2]	NT[3]	0[2]	NT	NT	NT	NT
2. H4	CM240A; CM244A[4]; CM245A	1660	NT	5400[5]	NT	769[6]	450[6]	52[6]
3. AA_2[7]	CM238; CM241A; CM244A	207	118	40	0[8]	NT	NT	NT
4. AA_2[8]	CM240A; CM245A;	298	NT	133	NT	15	NT	NT

1. Cloned cell population of HUT78 cell line.
2. No reverse transcriptase activity was detected in culture fluids.
3. Not tested
4. Harvested culture fluids from peripheral blood derived T-cell cultures infected with these three HIV-1 isolates were pooled, concentrated 100-fold and used for infection of the H4 cells.
5. Reverse transcriptase (RT) assay was positive, exhibited 4.4×10^4 cpm/ml of particle associated RT activity.
6. Values represent the highest detected level of p24/ml.
7. Cell line exhibits characteristics of B cells.
8. AA_2 cells from 3 at 25 days in culture were re-exposed to concentrated culture fluids from T-cell cultures infected with HIV-1 CM240A and CM245A isolates.

exposure to the virus inoculum. These data suggest that at least in combination, the CM240A and CM245A isolates can productively infect the H4 cells.

4. Attempts to Infect HTLV-I Immortalized Chimpanzee T Cells with HIV-1 Northern Thailand Isolates

An immortalized $CD4^+$ T cell line, termed 938CH/MJ was established by the infection of chimpanzee peripheral blood T cells with $HTLV\text{-}I_{MJ}$. This T-cell line exhibits characteristics of mature T cells and has a chimpanzee karyotype. These cells were exposed to a virus inoculum prepared from a pool of three virus isolates, CM238, CM241A and CM244A.3. As a control, HIV-1(5756), a highly infectious isolate of HIV-1 recovered from a drug addict by Dr. Nachera (Madrid, Spain), was also tested. Normal human T cells were included in this study as well. HIV-1(5756) was previously found to productively infect a number of permanent $CD4^+$ human cell lines. The presence of HIV-1 p24 in culture fluids harvested from 938CH/MJ cell cultures was followed for up to three weeks after exposure to the virus. As shown in Table 6, the 938CH/MJ culture exhibited low and gradually decreasing amounts of HIV-1 p24 following exposure to the Northern Thailand isolate of HIV-1. In the case of HIV-1(5756), the amount of HIV-1 p24 was higher and detectable even after three weeks post-infection. While these data suggest that the chimpanzee T-cell line is poorly permissive for the HIV-1 Northern Thailand isolates tested in these experiments, other observations suggested that infection could have been inhibited by the presence of foamy virus in this, as well as other, permanent cell lines derived from primates. This virus presents a major obstacle for studies of virus-host cell interaction using primate-derived cells. Two weeks after exposure to the virus, a large number of giant multinucleated cells appeared in the 938CH/MJ culture and the RT activity in the culture fluid was 1.5×10^4 cpm/ml with a preference for Mn^{++} instead of Mg^{++} cation, indicating that the foamy virus was mainly replicating in the 938/CH cultures. These experiments should be repeated using methods to limit foamy virus involvement.

In conclusion: (a) New stocks of HIV-1 Northern Thailand isolates have been prepared in sufficient amounts for further biological/virological studies of these unique isolates; (b) preliminary data suggest that kinetics of virus production could be different among five HIV-1 isolates tested so far; (c) out of five HIV-1 isolates tested, two seemed to productively infect the $CD4^+$ neoplastic H4 clones derived from HUT78. These two isolates, CM240A and CM245A, infect both normal T cells and monocyte/macrophages. A higher permissivity for T cells was observed with these two HIV-1 isolates; and (d) these data, as well as that observed elsewhere, suggest HTLV-I immortalized T

Table 6

Infection of HTLV-I Immortalized Chimpanzee T-Cells with HIV-1 Northern Thailand and European Isolates

Cells	Virus Isolates	Days After Exposure to Virus Inoculum 4	9	11	14	17	21
		p24 pg/ml[1]					
938 CH/MJ[2]	CM238; CM241A; CM244A.3	137	68	20	0	0	NT[3]
938 CH/MJ	5756[4]	1200	980	NT	NT	NT	78
BC200T (normal human T cells)	5756	5100	32000	75000	NT	NT	NT

1 Detected by antigen capture assay.
2 Chimpanzee T cells immortalized by HTLV-I_{MJ} isolate.
3 Not tested.
4 HIV-1(5756) isolate from a drug addict provided by Dr. Nachera (Madrid, Spain).

cells are not sufficient to determine whether a chronic infection of chimpanzee host cells can be achieved because of frequent presence of foamy virus. Fresh T cells and monocyte/macrophages from chimpanzees should be used in further studies.

D. Other Specialized Reagents

1. Native HIV-1 and SIV-1 Proteins

We have previously shown that a clone of HUT78 cells (clone 6D5) is highly susceptible to infection by HIV-1, HIV-2 and SIV. Most strains of virus are highly cytopathic to the 6D5 clone compared to the H9 cells. After the initial cytopathic effect, ~5% of the cells survive the infection and are selected to find those chronically-infected with HIV-1, HIV-2, or SIV-1. Further examination of the cell lines demonstrated that these cells harbor defective genomes and, in the case of two HIV-1 isolates, several clones of HIV-1_{IIIB} and HIV-1_{451} were found to secrete fairly high levels of gp120 and a truncated form of gp160 into supernatant fluids. These "native" proteins, which were further purified by procedures to avoid further denaturation (no ionic detergents, etc.), were found to present epitopes with properties different from proteins extracted from virus or by recombinant proteins. Subsequent experiments also allowed us to prepare envelope proteins secreted by SIV-1_{MNE}-infected cells. Several of these proteins were prepared for DOD scientists (Table 7).

One of the objectives of this project was to obtain cell lines chronically infected with the SIV_{MNE} (E11S) isolate for the purpose of obtaining purified native envelope and other structural proteins from the virus. As we described in quarterly reports, two cell lines of 6D5 cells infected with two different stocks of SIV_{MNE} (E11S) (MK# 69R and MK# 3xP in PBMC were developed. These cell lines were designated as $6D5_{MK1}$ and $6D5_{MK2}$. The cell lines had an average 2×10^6 cpm of reverse transcriptase activity per ml of medium. In the initial experiments we made single cell clones of the $6D5_{MK1}$ cell line by limiting dilution. Twenty-seven clones of the $6D5_{MK1}$ cell line were prepared and screened for reverse transcriptase activity. The clones were scaled up and frozen stocks were made and viably stored in liquid nitrogen.

These cell clones of $6D5_{MK1}$ cells were also analyzed for the secretion of envelope and other viral proteins. For the detection of gag proteins the cells were labeled for 8 hr with ^{35}S-methionine in methionine-free RPMI 1640 medium with 1% dialyzed fetal calf serum (100 µl/ml of ^{35}S-methionine). The labeled cells and the proteins in the extracellular media were immunoprecipitated with a rabbit antibody to SIV_{MNE} (E11S) proteins. At least four of the clones produced SIV gp120 and p24

Table 7

Purified Viral Proteins Provided to the Army

Date	Army Investigator	Protein	Quantity (mg)	Available At ABL
10-30-90	Dr. R. Redfield	HIV-1_{IIIB} gp120*	0.05	
08-21-91	Dr. T. Van Cott	HIV-1_{451} gp120*	0.102	
08-21-91	Dr. T. Van Cott	HIV-1_{451} gp160*	0.067	
04-15-93	Dr. T. Van Cott	HIV-1_{IIIB} gp120*	0.360	
04-15-93	Dr. T. Van Cott	HIV-1_{IIIB} gp160*	1.900	
04-15-93	Dr. T. Van Cott	HIV-1_{Bal} gp120*	0.045	
05-11-93	Dr. T. Van Cott	HIV-1_{IIIB} gp120*	1.32	
07-15-93	Dr. M. Lewis	SIV_{251} gp120*	0.344	0.481 mg
07-15-93	Dr. M. Lewis	SIV_{251} p27**	0.723	1.1 mg

*Native secreted proteins purified from HIV-infected cells.
**Purified from sucrose banded virus.

at levels comparable to SIV_{MAC} infected cells. Also, during the course of this contract similar clones of 6D5 cells infected by $HIV\text{-}1_{MN}$ were prepared and preliminary experiments demonstrated the production of gp120 by some clones.

2. Monoclonal Antibodies

Several monoclonal antibodies (MoAb) reactive against selected SIV antigen were also prepared for DOD scientists. These included MoAb to SIV_{251} gp120, p32, p17 and p24 proteins (Table 8).

E. Animal Holding and Related Services

On June 30, 1992, ABL received eight pigtail macaques (*Macaca nemestrina*) and eight cynomolgus macaques (*Macaca fascicularis*) to be housed and maintained on this project. Appendix B chronologically summarizes animal manipulations performed and Appendix C gives a summary of hematology, clinical chemistry and physical examination results by animal number. These nonhuman primates were transferred to Frederick Research Center on June 27, 1993.

III. CONCLUSIONS

This contract required the preparation of well-characterized stocks of whole inactivated HIV-1 and SIV-1, the preparation of native viral envelope or other proteins, the preparation of other immunological reagents for the detection and characterization of HIV-1 and SIV-1, the selection or adaptation of select HIV-1 isolates for use in nonhuman primates, and the housing, care and experimental manipulation of nonhuman primates, in support of DOD HIV vaccine programs.

Because of differences between individual virus isolates, the specific methods for production, concentration and partial purification, and inactivation must be determined, in large part, for each strain of virus considered for use as a whole virus vaccine. During the course of this contract, these parameters were evaluated for efficacy and the optimum preservation of antigenic determinants, and stocks of whole, inactivated $HIV\text{-}1_{IIIB}$ and $SIV\text{-}1_{MNE}$ (E11S) were prepared. These were either delivered to DOD investigators or are in inventory at ABL awaiting further instructions. Regarding method for virus inactivation, Psoralen proved to be very efficient in both inactivation of infectivity and in the preservation of major envelope and other structural antigens.

Table 8

Antibodies to Viral Antigens Provided to the Army

Date	Army Investigator	Monoclonal Antibody	Quantity
10-18-92	Dr. M. Lewis	Mouse MAb to SIV_{251} gp120	
		RM21-A	100 ml
		RM21-B	100 ml
		RM21-C	100 ml
		RM21-D	100 ml
		RM21-E	100 ml
		RM21-G	100 ml
		RM21-H	100 ml
		RM21-I	100 ml
		RM21-J	100 ml
		5G10	100 ml
03-27-92	Dr. M. Lewis	Mouse MAb to	
		SIV_{MAC} gp32	100 µl ascites
		SIV_{MAC} p24	100 µl ascites
		SIV_{MAC} p17	100 µl ascites
		SIV_{MAC} gp120	50 µl IgG
03-27-92	Dr. T. Van Cott	Mouse MAb to SIV gp120	
		RM21-A	50 µg
		RM21-B	50 µg
		RM21-C	50 µg
		RM21-D	50 µg
		RM21-E	50 µg
		RM21-G	50 µg
		RM21-H	50 µg
		RM21-I	50 µg
		RM21-J	50 µg

The preparation of selected strains of HIV-1 for use in vaccines included their adaptation and/or transmission to well-characterized cell lines. This was needed to insure the availability of an adequate level of standardized virus. Five isolates of HIV-1 obtained from DOD clinical studies were used to evaluate several established human T- and B-cell lines for susceptibility to productive infection. Once infected, cell lines were then cloned (single cells selected and amplified). Seventy-three cloned cell lines infected by one of the five isolates of HIV-1 were prepared and are in inventory at ABL.

Progress was also made toward the selection or adaptation of isolates of HIV-1 obtained from donors from Northern Thailand for use in nonhuman primates, e.g., chimpanzees. Stocks of five isolates were amplified in human peripheral blood lymphocytes or monocyte-macrophages, and studies to transmit several of these, individually or combined (pooled) were conducted. These preliminary studies suggested that these strains of virus could be transmitted to select cell lines. Attempts to transmit these viruses, again individually or pooled, into a transformed chimpanzee T-cell line were complicated by the apparent presence of primate foamy or spuma virus in the primate cells resulting in accelerated cell death. Since these primate foamy viruses are ubiquitous, future studies should include procedures to avoid, remove or neutralize these adventitious viruses.

Methods had previously been developed by ABL scientists permitting the production and preparation of secreted, "native" HIV-1 and SIV-1 envelope or other proteins. These "native" proteins were found to possess immunological advantages over similar proteins either by purification from concentrated virus of produced by recombinant procedures. DOD investigators were provided native gp120 and gp160 from several strains of HIV-1 and gp120 from $SIV\text{-}1_{MAC}$ during the course of this contract. Progress was also made in the preparation of native protein-secreting cell systems using viruses specifically requested by DOD scientists, e.g., $HIV\text{-}1_{MN}$, $SIV\text{-}1_{MNE}$ (E11S). Clones of HIV-1 and SIV-1 protein-secreting cells were also, at the request of DOD investigators, in the process re-evaluation for the secretion of viral structural or precursor proteins other than gp120 or gp160. These lines of investigation should be pursued, as the availability of these other viral proteins in a native, non-denatured state, could possibly also provide advantages related to conformation, epitope availability, etc.

Other reagents and services provided by this resource contract included the preparation of monoclonal antibodies to specific viral epitopes used to support DOD investigator detection, characterization and preparation of viral proteins. Sixteen nonhuman primates were also housed, veterinary service provided, and experimentally manipulated (e.g., inoculated with virus, blood and other specimens collected, physical examinations

performed, etc.) during the last year of this program. It is our understanding that the availability of these animals in the close proximity to DOD research facilities, and the responsiveness of ABL investigators to needs for specimens and other manipulations greatly facilitated DOD vaccine programs.

IV. REFERENCES

We are not aware of any publications resulting from this resource contract. Materials were provided to the Army as described in this report; there may be publications written by DOD scientists that involved the use of these materials.

APPENDIX A

INVENTORY OF VIRUS AND CELLS IN LIQUID NITROGEN

Record#	SLEEVE	BOX	SAMPLE	DATE	AMT	TYPE
587	3	B	L93-21#1IIC+PSORALIN 1ML 1MG IIIB	02/26/93	5	HIV-1 WR
588	3	B	L93-21#2 II PSORALIN 1000X 1.0ML	03/08/92	0	HIV-1 WR
589	3	B	L93-21 #2 II PSORALIN 1000X 0.1ML	03/08/92	1	HIV-1 WR
590	3	B	L93-21 #2 I 1000X 0.1ML	03/08/92	1	HIV-1 WR
665	7	C	L91-75 E4 CL8 (L93-29) #19	04/09/93	2	HIV-1 WR
666	7	C	L91-75 E3 CL3 (L93-29) #14	04/09/93	2	HIV-1 WR
667	7	C	L91-75 E4 CL2 (L93-29) #17	04/09/93	2	HIV-1 WR
668	7	C	L91-75 E4 CL11 (L93-29) #20	04/09/93	2	HIV-1 WR
670	7	C	L91-75 E3 CL2 (L93-29) #13	04/09/93	2	HIV-1 WR
671	7	C	L91-75 E2 CL3 (L93-29) #12	04/09/93	2	HIV-1 WR
672	7	C	L91-75 E1 CL17 (L93-29) #9	04/09/93	2	HIV-1 WR
673	7	C	L91-75 E1 CL30 (L93-29) #10	04/09/93	2	HIV-1 WR
682	7	F	L91-75 A1-8 (L93-29)#2	04/16/93	2	HIV-1 WR
683	7	F	L91-75 E1-3 (L93-29)#8	04/16/93	2	HIV-1 WR
684	7	F	L91-75 E2-2 (L93-29)#11	04/16/93	2	HIV-1 WR
685	7	F	L91-75 E3-5 (L93-29)#15	04/16/93	2	HIV-1 WR
686	7	E	L91-75 E4 (L93-29)#16	04/16/93	2	HIV-1 WR
687	7	F	L91-75 E4-3 (L93-29)#18	04/16/93	2	HIV-1 WR
688	7	F	L91-75 E5-14 (L93-29)#21	04/16/93	2	HIV-1 WR
689	7	F	L91-75 F1-4 (L93-29)#23	04/16/93	2	HIV-1 WR
694	3	C	L91-75 E4 (L93-29 #16)	04/20/93	4	HIV-1 WR
695	7	F	L91-75 F1-4 (L93-29 #23) CELLS	04/28/93	5	HIV-1 WR
696	7	F	L91-75 E5-14 (L93-29 #21) CELLS	04/28/93	5	HIV-1 WR
697	7	F	L91-75 E4-3 (L93-29 #18) CELLS	04/28/93	5	HIV-1 WR
698	7	F	L91-75 E3-5 (L93-29 #15) CELLS	04/28/93	5	HIV-1 WR
699	7	F	L91-75 E2-2 (L93-29 #11) CELLS	04/28/93	5	HIV-1 WR
700	7	F	L91-75 F5-1 (L93-29 #24) CELLS	04/28/93	2	HIV-1 WR
701	7	F	L91-75 A2-4 (L93-29 #3) CELLS	04/28/93	2	HIV-1 WR
702	7	F	L91-75 A1-5 (L93-29 #1) CELLS	04/28/93	2	HIV-1 WR
703	7	F	L91-75 A2-9 (L92-29 #4) CELLS	04/28/93	2	HIV-1 WR
704	7	F	L91-75 A3-4 (L93-29 #6) CELLS	04/28/93	2	HIV-1 WR
705	7	F	L91-75 A5-1 (L93-29 #7) CELLS	04/28/93	2	HIV-1 WR
706	7	F	L91-75 F5-4 (L93-29 #26) CELLS	04/28/93	1	HIV-1 WR
707	7	G	L91-75 E1-3 (L93-29 #8) CELLS	04/28/93	5	HIV-1 WR
708	7	G	L91-75 A1-8 (L93-29 #2) CELLS	04/28/93	3	HIV-1 WR
709	7	G	L91-75 A3-3 (L93-29 #5) CELLS	04/28/93	2	HIV-1 WR
770	11	D	HIV-1IIIB+PSORALIN L93-69#2 1ML 1MG	07/08/93	0	HIV-1 WR
771	11	D	HIV-1IIIB+PSORALIN L93-69#1 1ML 1MG	07/22/93	0	HIV-1 WR

Record#	SLEEVE	BOX	SAMPLE	DATE	AMT	TYPE
587	3	B	L93-21#1IIC+PSORALIN 1ML 1MG IIIB	02/26/93	5	HIV-1 WR
588	3	B	L93-21#2 II PSORALIN 1000X 1.0ML	03/08/92	0	HIV-1 WR
589	3	B	L93-21 #2 II PSORALIN 1000X 0.1ML	03/08/92	1	HIV-1 WR
590	3	B	L93-21 #2 I 1000X 0.1ML	03/08/92	1	HIV-1 WR
665	7	C	L91-75 E4 CL8 (L93-29) #19	04/09/93	2	HIV-1 WR
666	7	C	L91-75 E3 CL3 (L93-29) #14	04/09/93	2	HIV-1 WR
667	7	C	L91-75 E4 CL2 (L93-29) #17	04/09/93	2	HIV-1 WR
668	7	C	L91-75 E4 CL11 (L93-29) #20	04/09/93	2	HIV-1 WR
670	7	C	L91-75 E3 CL2 (L93-29) #13	04/09/93	2	HIV-1 WR
671	7	C	L91-75 E2 CL3 (L93-29) #12	04/09/93	2	HIV-1 WR
672	7	C	L91-75 E1 CL17 (L93-29) #9	04/09/93	2	HIV-1 WR
673	7	C	L91-75 E1 CL30 (L93-29) #10	04/09/93	2	HIV-1 WR
682	7	F	L91-75 A1-8 (L93-29)#2	04/16/93	2	HIV-1 WR
683	7	F	L91-75 E1-3 (L93-29)#8	04/16/93	2	HIV-1 WR
684	7	F	L91-75 E2-2 (L93-29)#11	04/16/93	2	HIV-1 WR
685	7	F	L91-75 E3-5 (L93-29)#15	04/16/93	2	HIV-1 WR
686	7	E	L91-75 E4 (L93-29)#16	04/16/93	2	HIV-1 WR
687	7	F	L91-75 E4-3 (L93-29)#18	04/16/93	2	HIV-1 WR
688	7	F	L91-75 E5-14 (L93-29)#21	04/16/93	2	HIV-1 WR
689	7	F	L91-75 F1-4 (L93-29)#23	04/16/93	2	HIV-1 WR
694	3	C	L91-75 E4 (L93-29 #16)	04/20/93	4	HIV-1 WR
695	7	F	L91-75 F1-4 (L93-29 #23) CELLS	04/28/93	5	HIV-1 WR
696	7	F	L91-75 E5-14 (L93-29 #21) CELLS	04/28/93	5	HIV-1 WR
697	7	F	L91-75 E4-3 (L93-29 #18) CELLS	04/28/93	5	HIV-1 WR
698	7	F	L91-75 E3-5 (L93-29 #15) CELLS	04/28/93	5	HIV-1 WR
699	7	F	L91-75 E2-2 (L93-29 #11) CELLS	04/28/93	5	HIV-1 WR
700	7	F	L91-75 F5-1 (L93-29 #24) CELLS	04/28/93	2	HIV-1 WR
701	7	F	L91-75 A2-4 (L93-29 #3) CELLS	04/28/93	2	HIV-1 WR
702	7	F	L91-75 A1-5 (L93-29 #1) CELLS	04/28/93	2	HIV-1 WR
703	7	F	L91-75 A2-9 (L92-29 #4) CELLS	04/28/93	2	HIV-1 WR
704	7	F	L91-75 A3-4 (L93-29 #6) CELLS	04/28/93	2	HIV-1 WR
705	7	F	L91-75 A5-1 (L93-29 #7) CELLS	04/28/93	2	HIV-1 WR
706	7	F	L91-75 F5-4 (L93-29 #26) CELLS	04/28/93	1	HIV-1 WR
707	7	G	L91-75 E1-3 (L93-29 #8) CELLS	04/28/93	5	HIV-1 WR
708	7	G	L91-75 A1-8 (L93-29 #2) CELLS	04/28/93	3	HIV-1 WR
709	7	G	L91-75 A3-3 (L93-29 #5) CELLS	04/28/93	2	HIV-1 WR
770	11	D	HIV-1IIIB+PSORALIN L93-69#2 1ML 1MG	07/08/93	16	HIV-1 WR
771	11	D	HIV-1IIIB+PSORALIN L93-69#1 1ML 1MG	07/22/93	3	HIV-1 WR

Record#	SLEEVE	BOX	SAMPLE	DATE	AMT	TYPE
1404	6	B	L91-50 1A(3935) 1.5 ml HU. PBL SUPS	05/08/91	7	HIV-1 WR
1405	6	B	L91-50 1B(3936) 1.5 ml HU. PBL SUPS	05/08/91	7	HIV-1 WR
1406	6	B	L91-50 1C(3938) 1.5 ml HU. PBL SUPS	05/08/91	7	HIV-1 WR
1407	6	B	L91-50 1D(3939) 1.5 ml HU. PBL SUPS	05/08/91	7	HIV-1 WR
1408	6	B	L91-50 1E(4157B) 1.5 ml HU.PBL SUPS	05/08/91	7	HIV-1 WR
1409	6	B	L91-50 IA 3935 HU.PBL SUPS.	05/29/91	2	HIV-1 WR
1410	6	B	L91-50 IB 3936 HU. PBL SUPS.	05/29/91	2	HIV-1 WR
1411	6	B	L91-50 IC 3938 HU.PBL SUPS.	05/29/91	2	HIV-1 WR
1412	6	B	L91-50 ID 3939 HU.PBL SUPS.	05/29/91	2	HIV-1 WR
1413	6	B	L91-50 IE 4157B HU.PBL SUPS.	05/29/91	2	HIV-1 WR
1414	15	B	L91-50 IA HIV-1 #3935 HU. PBL SUPS.	09/07/91	15	HIV-1 WR
1415	15	B	L91-50 IB HIV-1 #3936 HU.PBL SUPS.	09/07/91	15	HIV-1 WR
1416	15	B	L91-50 IC HIV-1 #3938 HU.PBL SUPS.	09/07/91	15	HIV-1 WR
1417	15	B	L91-50 ID HIV-1 #3939 HU. PBL SUPS.	09/07/91	15	HIV-1 WR
1418	15	B	L91-50 IE HIV-1 #4157B HU.PBL SUPS.	09/07/91	15	HIV-1 WR
1419	15	C	L91-50 IA HIV-1 #3935 HU.PBL	09/09/91	2	HIV-1 WR
1420	15	C	L91-50 IB HIV-1 #3936 HU.PBL	09/09/91	2	HIV-1 WR
1421	15	L	91-50 IC HIV-1 #3938 HU.PBL	09/09/91	2	HIV-1 WR
1422	15	C	L91-50 ID HIV-1 #3939 HU. PBL	09/09/91	2	HIV-1 WR
1423	15	C	L91-50 IE HIV-1 #4157B PB HU.PBL	09/09/91	2	HIV-1 WR
1434	15	D	L91-75 A1 HIV-1 #3935 SUP T1	10/11/91	2	HIV-1 WR
1435	15	D	L91-75 A2 HIV-1 #3936 SUP T1	10/11/91	2	HIV-1 WR
1436	15	D	L91-75 A3 HIV-1 #3938 SUP T1	10/11/91	2	HIV-1 WR
1437	15	D	L91-75 A5 HIV-1 #4157B SUP T1	10/11/91	2	HIV-1 WR
1438	15	D	L91-75 B1 HIV-1 #3935 CEM-SS	10/11/91	2	HIV-1 WR
1439	15	D	L91-75 C1 HIV-1 #3935 H9	10/11/91	2	HIV-1 WR
1440	15	D	L91-75 D1 HIV-1 #3935 A3.01	10/11/91	2	HIV-1 WR
1441	15	D	L91-75 D3 HIV-1 #3938 A3.01	10/11/91	2	HIV-1 WR
1442	15	D	L91-75 E1 HIV-1 #3935 ET62	10/10/91	2	HIV-1 WR
1443	15	D	L91-75 E2 HIV-1 #3936 ET62	10/11/91	2	HIV-1 WR
1444	15	D	L91-75 E3 HIV-1 #3938 ET62	10/11/91	2	HIV-1 WR
1445	15	D	L91-75 E4 HIV-1 #3939 ET62	10/11/91	1	HIV-1 WR
1446	15	D	L91-75 E5 HIV-1 #4157B ET62	10/11/91	6	HIV-1 WR
1447	15	D	L91-75 F1 HIV-1 #3935 AA2	10/11/91	2	HIV-1 WR
1448	15	D	L91-75 F2 HIV-1 #3936 AA2	10/11/91	2	HIV-1 WR
1449	15	D	L91-75 F3 HIV-1 #3938 AA2	10/11/91	2	HIV-1 WR
1450	15	D	L91-75 F5 HIV-1 #4157B AA2	10/11/91	2	HIV-1 WR
1451	15	D	L91-75 A1 HIV-1 #3935 SUP T1	10/18/91	2	HIV-1 WR
1452	15	D	L91-75 A2 HIV-1 #3936 SUP T1	10/18/91	2	HIV-1 WR
1453	15	D	L91-75 A3 HIV-1 #3938 SUP T1	10/18/91	2	HIV-1 WR
1454	15	D	L91-75 A5 HIV-1 #4157B SUP T1	10/18/91	2	HIV-1 WR
1455	15	D	L91-75 B1 HIV-1 #3935 CEM-SS	10/18/91	2	HIV-1 WR
1456	15	D	L91-75 B3 HIV-1 #3938 CEM-SS	10/18/91	2	HIV-1 WR
1457	15	D	L91-75 C1 HIV-1 #3935 H9	10/18/91	2	HIV-1 WR
1458	15	D	L91-75 D1 HIV-1 #3935 A3.01	10/18/91	2	HIV-1 WR
1459	15	D	L91-75 D3 HIV-1 #3938 A3.01	10/18/91	2	HIV-1 WR
1460	15	D	L91-75 E2 HIV-1 #3936 ET62	10/18/91	2	HIV-1 WR
1461	15	D	L91-75 E3 HIV-1 #3938 ET62	10/18/91	2	HIV-1 WR
1462	15	D	L91-75 E4 HIV-1 #3939 ET62	10/18/91	2	HIV-1 WR
1463	15	D	L91-75 F1 HIV-1 #3935 AA2	10/18/91	2	HIV-1 WR
1464	15	D	L91-75 F2 HIV-1 #3936 AA2	10/18/91	2	HIV-1 WR
1465	15	D	L91-75 F3 HIV-1 #3938 AA2	10/18/91	2	HIV-1 WR
1466	15	D	L91-75 F5 HIV-1 #4157B AA2	10/18/91	2	HIV-1 WR
1467	15	D	L91-75 E1 CLONE 3 HIV-1 #3935 ET62	10/18/91	1	HIV-1 WR
1468	15	D	L91-75 E1 CLONE 9 HIV-1 #3935 ET62	10/18/91	2	HIV-1 WR
1469	15	D	L91-75 E1 CLONE 17 HIV-1 #3935 ET62	10/18/91	1	HIV-1 WR
1470	15	E	L91-75 E1 CLONE 2 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1471	15	E	L91-75 E1 CLONE 3 HIV-1 3935 ET 62	10/28/91	1	HIV-1 WR

1472	15	E	L91-75 E1 CLONE 4 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1473	15	E	L91-75 E1 CLONE 6 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1474	15	E	L91-75 E1 CLONE 7 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1475	15	E	L91-75 E1 CLONE 8 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1476	15	E	L91-75 E1 CLONE 9 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1477	15	E	L91-75 E1 CLONE 11 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1478	15	E	L91-75 E1 CLONE14 HIV-1 3935 ET 62	10/29/91	2	HIV-1 WR
1479	15	E	L91-75 E1 CLONE 15 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1480	15	E	L91-75 E1 CLONE17 HIV-13935 ET 62	10/28/91	2	HIV-1 WR
1481	15	E	L91-75 E1 CLONE 18 HIV-1 3935 ET62	10/28/91	2	HIV-1 WR
1482	15	E	L91-75 E1 CLONE 19 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1483	15	E	L91-75 E1 CLONE20 HIV-1 3935 WT 62	10/28/91	2	HIV-1 WR
1484	15	E	L91-75 E1 CLONE 21 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1485	15	E	L91-75 E1 CLONE22 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1486	15	E	L91-75 E1 CLONE 23 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1487	15	E	L91-75 E1 CLONE 25 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1488	15	E	L91-75 E1 CLONE 26 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1489	15	E	L91-75 E1 CLONE27 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1490	15	E	L91-75 E1 CLONE 28 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1491	15	E	L91-75 E1 CLONE 29 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1492	15	E	L91-75 E1 CLONE 30 HIV-1 3935 ET 62	10/28/91	1	HIV-1 WR
1493	15	E	L91-75 E1 CLONE 31 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1494	15	E	L91-75 E1 CLONE 32 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1495	15	E	L91-75 E1 CLONE 34 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1496	15	E	L91-75 E1 CLONE 35 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1497	15	E	L91-75 E1 CLONE 36 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1498	15	E	L91-75 E1 CLONE 37 HIV-1 3935 ET 62	10/28/91	2	HIV-1 WR
1499	15	E	L91-75 E5 CLONE 2 HIV-1 4157B ET62	10/28/91	0	HIV-1 WR
1500	15	E	L91-75 E5 CLONE 5 HIV-1 4157B ET62	10/28/91	2	HIV-1 WR
1501	15	E	L91-75 E5 CLONE 13 HIV-1 4157B ET62	10/28/91	2	HIV-1 WR
1502	15	E	L91-75 E5 CLONE 14 HIV-1 4157B ET62	10/28/91	1	HIV-1 WR
1503	15	E	L91-75 E5 CLONE 22 HIV-1 4157B ET62	10/28/91	2	HIV-1 WR
1504	15	E	L91-75 E5 CLONE 25 HIV-1 4157B ET62	10/28/91	2	HIV-1 WR
1505	15	E	L91-75 E5 CLONE 37 HIV-1 4157B ET62	10/28/91	2	HIV-1 WR
1506	15	E	L91-75 E5 CLONE 40 HIV-1 4157B ET62	10/28/91	1	HIV-1 WR
1507	15	E	L91-75 E5 CLONE 41 HIV-1 4156B ET62	10/28/91	2	HIV-1 WR
1508	15	E	L91-75 E5 CLONE 42 HIV-1 4157B ET62	10/28/91	2	HIV-1 WR
1510	15	A	L91-75 A1 CLONE 3 HIV-1 #3935 SUPT1	11/22/91	2	HIV-1 WR
1511	15	A	L91-75 A1 CLONE 5 HIV-1 #3935 SUPT1	11/22/91	2	HIV-1 WR
1512	15	A	L91-75 A2 CLONE 2 HIV-1 #3936 SUPT1	11/22/91	2	HIV-1 WR
1513	15	A	L91-75 A2 CLONE 4 HIV-1 #3936 SUPT1	11/22/91	1	HIV-1 WR
1514	15	A	L91-75 A3 CLONE 3 HIV-1 #3938 SUPT1	11/22/91	1	HIV-1 WR
1515	15	A	L91-75 A3 CLONE 4 HIV-1 #3938 SUPT1	11/22/91	2	HIV-1 WR
1516	15	A	L91-75 A5 CLONE 1 HIV-1 #4157BSUPT1	11/22/91	1	HIV-1 WR
1517	15	A	L91-75 A5 CLONE 5 HIV-1 #4157BSUPT1	11/22/91	2	HIV-1 WR
1518	15	A	L91-75 E2 CLONE 2 HIV-1 #3936 ET62	11/22/91	2	HIV-1 WR
1519	15	A	L91-75 E2 CLONE 3 HIV-1 #3936 ET62	11/22/91	1	HIV-1 WR
1520	15	A	L91-75 E2 CLONE 4 HIV-1 #3936 ET62	11/22/91	2	HIV-1 WR
1521	15	A	L91-75 E3 CLONE 1 HIV-1 #3938 ET62	11/22/91	2	HIV-1 WR
1522	15	A	L91-75 E3 CLONE 2 HIV-1 #3938 ET62	11/22/91	2	HIV-1 WR
1523	15	A	L91-75 E3 CLONE 3 HIV-1 #3938 ET62	11/22/91	2	HIV-1 WR
1524	15	A	L91-75 E3 CLONE 5 HIV-1 #3938 ET63	11/22/91	2	HIV-1 WR
1525	15	A	L91-75 F1 CLONE 3 HIV-1 #3935 AA2	11/22/91	2	HIV-1 WR
1526	15	A	L91-75 F1 CLONE 4 HIV-1 #3935 AA2	11/22/91	2	HIV-1 WR
1527	15	A	L91-75 F5 CLONE 1 HIV-1 #4157B AA2	11/22/91	1	HIV-1 WR
1528	15	A	L91-75 F5 CLONE 4 HIV-1 #4157B AA2	11/22/91	1	HIV-1 WR
1529	15	A	L91-75 F5 CLONE 5 HIV-1 #4157B AA2	11/22/91	2	HIV-1 WR
1530	9	A	L91-75 B1 CL7 HIV-1 #3935 CEM-SS	01/17/92	3	HIV-1 WR
1531	9	A	L91-75 B1 CL11 HIV-1 #3935 CEM-SS	01/17/92	3	HIV-1 WR
1532	9	A	L91-75 B1 CL13 HIV-1 #3935 CEM-SS	01/17/92	3	HIV-1 WR

1533	9	A	L91-75 C1 CL1 HIV-1 #3935 H9	01/17/92	3	HIV-1 WR
1534	9	A	L91-75 C1 CL3 HIV-1 #3935 H9	01/17/92	3	HIV-1 WR
1535	9	A	L91-75 C1 CL4 HIV-1 #3935 H9	01/17/92	3	HIV-1 WR
1536	9	A	L91-75 C1 CL7 HIV-1 #3935 H9	01/17/92	3	HIV-1 WR
1537	9	A	L91-75 E4 CL2 HIV-1 #3939 ET62	01/17/92	3	HIV-1 WR
1538	9	A	L91-75 E4 CL3 HIV-1 #3939 ET62	01/17/92	3	HIV-1 WR
1539	9	A	L91-75 E4 CL7 HIV-1 #3939 ET62	01/17/92	3	HIV-1 WR
1540	9	A	L91-75 E4 CL8 HIV-1 #3939 ET62	01/17/92	3	HIV-1 WR
1541	9	A	L91-75 E4 CL10 HIV-1 #3939 ET62	01/17/92	3	HIV-1 WR
1542	9	A	L91-75 E4 CL11 HIV-1 #3939 ET62	01/17/92	3	HIV-1 WR
1543	15	A	L92-4 IA POS. CONTROL 0.1ML 1MG/ML	01/24/92	2	SIV-1 WR
1544	15	A	L92-4 IB POS. CONTROL 0.1ML 1MG/ML	01/24/92	2	SIV-1 WR
1545	15	A	L92-4IC 10,000X SIV E11S C214 1ML	01/24/92	1	SIV-1 WR
1546	15	A	L92-4IA-1 48HR FORMALIN 1MG/ML .1ML	01/26/92	3	SIV-1 WR
1547	15	A	L92-10 III POS. CONT. 0.1ML .5MG/ML	02/10/92	3	SIV-1 WR
1548	15	A	L92-4IA-2 PSORALEN 60'UV 1MG/ML.1ML	01/24/92	2	SIV-1 WR
1549	15	A	L92-4IA-2 PSORALEN 60'UV .5MG/ML1ML	01/24/92	4	SIV-1 WR
1550	15	A	L92-4IB-2 PSORALEN 60'UV 1MG/ML.1ML	01/24/92	2	SIV-1 WR
1551	15	A	L92-4IB-2 PSORALEN 60'UV .5MG/ML1ML	01/24/92	4	SIV-1 WR
1552	15	C	L92-4IB-1 48HR FORMALIN .5MG/ML	01/26/92	1	SIV-1 WR
1553	15	C	L92-4IA-1 15HR FORMALIN 1MG/ML .1ML	01/25/92	2	SIV-1 WR
1554	15	C	L92-4IB-1 15HR FORMALIN 1MG/ML .1ML	01/25/92	2	SIV-1 WR
1555	15	F	L92-4IA-1 48HR FORMALIN .5MG/ML 1ML	01/26/92	14	SIV-1 WR
1556	15	F	L92-4IB-1 48HR FORMALIN .5MG/ML 1ML	01/26/92	15	SIV-1 WR
1557	15	A	L92-10 IA1 POS.CONTROL 0.1ML 1MG/ML	02/10/92	3	SIV-1 WR
1558	15	A	L92-10 IA2 SONICATED +CONT 1MG/ML.1	02/10/92	3	SIV-1 WR
1559	15	A	L92-10 IA4 48HR 1MG/ML 0.3ML	02/12/92	3	SIV-1 WR
1560	15	A	L92-10 IA4 48HR 0.5MG/ML 0.3ML	02/12/92	1	SIV-1 WR
1561	15	F	L92-10 IA4 48HR 0.5MG/ML 1ML	02/12/92	39	SIV-1 WR
1562	15	A	L92-10 IIA2 SONICATED +CONT..5MG/ML	02/10/92	3	SIV-1 WR
1563	15	A	L92-10 IIA5 48HR .5MG/ML .3ML	02/12/92	3	SIV-1 WR
1564	15	C	L92-10 IIA5 48HR .5MG/ML 1ML	02/12/92	20	SIV-1 WR
1565	15	A	L92-10 IIIA4 48HR .5MG/ML .3ML	02/12/92	3	SIV-1 WR
1566	15	C	L92-10 IIIA4 48HR .5MG/ML 1ML	02/12/92	7	SIV-1 WR
1567	15	F	L92-10 IIIA4 48HR .5MG/ML 1ML	02/12/92	13	SIV-1 WR
1628	15	A	L92-10 POS. CONTROL 1MG/ML 1.0 ML	03/25/92	10	SIV-1 WR
1629	15	A	L92-10 POS. CONTROL 1MG/ML 0.3ML	03/25/92	1	SIV-1 WR
1639	20	D	L91-75 E1 #3935 ET 62	03/30/92	4	HIV-1 WR
1640	20	D	L91-75 E5 #4157B ET 62	03/30/92	4	HIV-1 WR

Record#	RACK	BOX	SAMPLE	DATE	AMT	REM	TYPE
2526	17	C	91-15A POOL SUPS #3935 HU.PBL	02/11/91	16	16	HIV-1 WR
2527	17	C	91-15B POOL SUPS 3936 HU.PBL	02/11/91	14	14	HIV-1 WR
2528	17	C	91-15C POOL SUPS #3938 HU.PBL	02/11/91	7	7	HIV-1 WR
2529	17	C	91-15C POOL SUPS #3938 HU.PBL	02/11/91	7	7	HIV-1 WR
2530	17	D	91-15D POOL SUPS #3939 HU.PBL	02/11/91	16	16	HIV-1 WR
2531	17	D	91-15E POOL SUPS #4157B HU.PBL	02/11/91	14	14	HIV-1 WR
2533	13	G	3935 SUPS HU. PBL 1990 FROM WRAIR	/ /	1	1	HIV-1 WR
2534	13	G	3936 SUPS HU.PBL FROM WRAIR 1990	/ /	1	1	HIV-1 WR
2535	13	G	3938 SUPS HU. PBL FROM WRAIR 1990	/ /	1	1	HIV-1 WR
2536	13	G	3939 SUPS HU,.PBL FROM WRAIR 1990	/ /	0	0	HIV-1 WR
2537	13	G	4157B SUPS HU.PBL FROM WRAIR 1990	/ /	0	0	HIV-1 WR
2776	8	H	L91-48A SUP HIV-1 #3935 MACROPHAGE	05/17/91	0	0	HIV-1 WR
2777	8	H	L91-48C SUP HIV-1 #4157B MACROPHAGE	05/17/91	3	3	HIV-1 WR
2778	8	H	L91-48D SUP HIV-1 BAL MARCOPHAGE	05/17/91	3	3	HIV-1 WR
2779	8	H	L91-48E SUP HIV-1 #3938 MACROPHAGE	05/17/91	0	0	HIV-1 WR
2780	8	H	L91-48F SU HIV-1 #3936 MACROPHAGE	05/17/91	3	3	HIV-1 WR
2781	8	H	L91-48G SUP HIV-1 #3939 MACROPHAGE	05/17/91	3	3	HIV-1 WR
2919	5	C	L91-75 E1 CLONE 2 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2920	5	C	L91-75 E1 CLONE 4 HIV-1 #3935 ET 62	11/04/91	1	1	HIV-1 WR
2921	5	C	L91-75 E1 CLONE 6 HIV-1 #3935 ET 62	11/04/91	1	1	HIV-1 WR
2922	5	C	L91-75 E1 CLONE 7 HIV-1 #3935 ET 62	11/04/91	1	1	HIV-1 WR
2923	5	C	L91-75 E1 CLONE 8 HIV-1 #3935 ET 62	11/04/91	1	1	HIV-1 WR
2924	5	C	L91-75 E1 CLONE 11 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2925	5	C	L91-75 E1 CLONE 14 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2926	5	C	L91-75 E1 CLONE 15 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2927	5	C	L91-75 E1 CLONE 18 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2928	5	C	L91-75 E1 CLONE 19 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2929	5	C	L91-75 E1 CLONE 20 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2930	5	C	L91-75 E1 CLONE 21 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2931	5	C	L91-75 E1 CLONE 22 HIV-1#3935 ET62	11/04/91	1	1	HIV-1 WR
2932	5	C	L91-75 E1 CLONE 23 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2933	5	C	L91-75 E1 CLONE 26 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2934	5	C	L91-75 E1 CLONE 27 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2935	5	C	L91-75E1 CLONE 28 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2936	5	C	L91-75 E1 CLONE 29 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2937	5	C	L91-75 E1 CLONE 30 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2938	5	C	L91-75 E1 CLONE 31 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2939	5	C	L91-75 E1 CLONE 32 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2940	5	C	L91-75 E1 CLONE 34 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2941	5	C	L91-75 E1 CLONE 35 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2942	5	C	L91-75 E1 CLONE 36 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2943	5	C	L91-75 E1 CLONE 37 HIV-1 #3935 ET62	11/04/91	1	1	HIV-1 WR
2944	5	C	L91-75 E5 CLONE 2 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2945	5	C	L91-75E5 CLONE 5 HIV-1 #4157B ET 62	11/04/91	1	1	HIV-1 WR
2946	5	C	L91-75E5 CLONE 13 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2947	5	C	L91-75E5 CLONE 22 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2948	5	C	L91-75E5 CLONE 25 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2949	5	C	L91-75E5 CLONE 37 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2950	5	C	L91-75E5 CLONE 40 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2951	5	C	L91-75E5 CLONE 41 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2952	5	C	L91-75E5 CLONE 42 HIV-1 #4157B ET62	11/04/91	1	1	HIV-1 WR
2965	8	A	L91-75A1 CLONE 3 HIV-1 #3935 SUPT1	11/16/91	1	1	HIV-1 WR
2966	8	A	L91-75A1 CLONE 5 HIV-1 #3935 SUP T1	11/16/91	2	2	HIV-1 WR
2967	8	A	L91-75A3 CLONE 4 HIV-1 #3938 SUP T1	11/16/91	1	1	HIV-1 WR
2968	8	A	L91-75A5 CLONE 1 HIV-1 #4157B SUPT1	11/16/91	2	2	HIV-1 WR
2969	8	A	L91-75E2 CLONE 2 HIV-1 #3936 ET 62	11/16/91	2	2	HIV-1 WR
2970	8	A	L91-75E2 CLONE 3 HIV-1 #3936 ET 62	11/16/91	2	2	HIV-1 WR
2971	8	A	L91-75E3 CLONE 2 HIV-1 #3938 ET 62	11/16/91	2	2	HIV-1 WR

2972	8	A	L91-75E3 CLONE 3 HIV-1 #3938 ET 62	11/16/91	2	2	HIV-1 WR
2973	8	A	L91-75E3 CLONE 5 HIV-1 #3938 ET 62	11/16/91	2	2	HIV-1 WR
2974	8	A	L91-75F1 CLONE 3 HIV-1 #3935 AA 2	11/16/91	2	2	HIV-1 WR
2975	8	A	L91-75F1 CLONE 4 HIV-1 #3935 AA 2	11/16/91	2	2	HIV-1 WR
2984	4	C	L91-75 B1 HIV-1 #3935 CEM-SS	11/29/91	2	2	HIV-1 WR
2985	4	C	L91-75 B2 HIV-1 #3936 CEM-SS	11/29/91	2	2	HIV-1 WR
2986	2	C	L91-75 B3 HIV-1 #3938 CEM-SS	11/29/91	2	2	HIV-1 WR
2987	4	C	L91-75 C1 HIV-1 #3935 H9	11/29/91	2	2	HIV-1 WR
2988	4	C	L91-75 C3 HIV-1 #3938 H9	11/29/91	2	2	HIV-1 WR
2989	4	C	L91-75 A1 CLONE 8 HIV-1 #3935 SUPT1	11/29/91	2	2	HIV-1 WR
2990	4	C	L91-75 A2 CLONE 9 HIV-1 #3936 SUPT1	11/29/91	2	2	HIV-1 WR
2991	4	C	L91-75B3 CLONE 8 HIV-1 #3938 CEM-SS	11/29/91	2	2	HIV-1 WR
2992	4	C	L91-75E2 CLONE 6 HIV-1 #3936 ET62	11/29/91	2	2	HIV-1 WR
2993	4	C	L91-75E2 CLONE 7 HIV-1 #3936 ET62	11/29/91	2	2	HIV-1 WR
2994	4	C	L91-75E3 CLONE 7 HIV-1 #3938 ET62	11/29/91	2	2	HIV-1 WR
2995	4	C	L91-75E3 CLONE 9 HIV-1 #3938 ET62	11/29/91	2	2	HIV-1 WR
2996	4	C	L91-75 E4 HIV-1 #3939 ET62	11/29/91	2	2	HIV-1 WR
3033	8	H	L91-48 A SUP	05/31/91	2	2	HIV-1 WR
3034	8	H	L91-48-C SUP	05/31/91	2	2	HIV-1 WR
3035	8	H	L91-48 D SUP	05/31/91	2	2	HIV-1 WR
3036	8	H	L91-48 E SUP	05/31/91	2	2	HIV-1 WR
3037	8	H	L91-48 F SUP	05/31/91	2	2	HIV-1 WR
3038	8	H	L91-48 G SUP	05/31/91	2	2	HIV-1 WR
3039	8	H	L91-48 A SUP	06/03/91	1	1	HIV-1 WR
3040	8	H	L91-48 C SUP	06/03/91	1	1	HIV-1 WR
3041	8	H	L91-48 D SUP	06/03/91	1	1	HIV-1 WR
3042	8	H	L91-48 E SUP	06/03/91	1	1	HIV-1 WR
3043	8	H	L91-48 F SUP	06/03/91	1	1	HIV-1 WR
3044	8	H	L91-48 G SUP	06/03/91	1	1	HIV-1 WR
3048	8	H	L91-48 A SUP	06/14/91	1	1	HIV-1 WR
3049	8	H	L91-48 C SUP	06/14/91	1	1	HIV-1 WR
3050	8	H	L91-48 D SUP	06/14/91	1	1	HIV-1 WR
3051	8	H	L91-48 E SUP	06/14/91	1	1	HIV-1 WR
3052	8	H	L91-48 F SUP	06/14/91	1	1	HIV-1 WR
3053	8	H	L91-48 G SUP	06/14/91	1	1	HIV-1 WR
3054	8	I	L91-48 A SUP	06/18/91	1	1	HIV-1 WR
3055	8	I	L91-48 C SUP	06/18/91	1	1	HIV-1 WR
3056	8	I	L91-48 D SUP	06/18/91	1	1	HIV-1 WR
3079	2	G	L91-50 IA	06/20/91	1	1	HIV-1 WR
3080	2	G	L91-50 IB	06/20/91	1	1	HIV-1 WR
3081	2	G	L91-50 IC	06/20/91	1	1	HIV-1 WR
3082	2	G	L91-50 ID	06/20/91	1	1	HIV-1 WR
3083	2	G	L91-50 IE	06/20/91	1	1	HIV-1 WR
3084	2	G	L91-50 3A	06/20/91	1	1	HIV-1 WR
3085	2	G	L91-50 3B	06/20/91	1	1	HIV-1 WR
3086	2	G	L91-50 3C	06/20/91	1	1	HIV-1 WR
3087	2	G	L91-50 3D	06/20/91	1	1	HIV-1 WR
3088	2	G	L91-50 3E	06/20/91	1	1	HIV-1 WR
3089	2	G	L91-50 4A	06/20/91	1	1	HIV-1 WR
3090	2	G	L91-50 4B	06/20/91	1	1	HIV-1 WR
3091	2	G	L91-50 4C	06/20/91	1	1	HIV-1 WR
3092	2	G	L91-50 4C	06/20/91	1	1	HIV-1 WR
3093	2	G	L91-50 4D	06/20/91	1	1	HIV-1 WR
3094	2	G	L91-50 4E	06/20/91	1	1	HIV-1 WR
3095	2	G	L91-50 5A	06/20/91	1	1	HIV-1 WR
3096	2	G	L91-50 5B	06/20/91	1	1	HIV-1 WR
3097	2	G	L91-50 5C	06/20/91	1	1	HIV-1 WR
3098	2	G	L91-50 5D	06/20/91	1	1	HIV-1 WR
3099	2	G	L91-50 5E	06/20/91	1	1	HIV-1 WR
3100	2	G	L91-50 6A	06/20/91	1	1	HIV-1 WR

3101	2	G	L91-50 6B	06/20/91	1	1	HIV-1 WR
3102	2	G	L91-50 6C	06/20/91	1	1	HIV-1 WR
3103	2	G	L91-50 6D	06/20/91	1	1	HIV-1 WR
3104	2	G	L91-50 6E	06/20/91	1	1	HIV-1 WR
3105	2	G	L91-50 7A	06/20/91	1	1	HIV-1 WR
3106	2	G	L91-50 7B	06/20/91	1	1	HIV-1 WR
3107	2	G	L91-50 7B	06/20/91	1	1	HIV-1 WR
3108	2	G	L91-50 7C	06/20/91	1	1	HIV-1 WR
3109	2	G	L91-50 7C	06/20/91	1	1	HIV-1 WR
3110	2	G	L91-50 7D	06/20/91	1	1	HIV-1 WR
3111	2	G	L91-50 7E	06/20/91	1	1	HIV-1 WR
3115	8	H	L91-48 A SUP	06/26/91	1	1	HIV-1 WR
3116	8	H	L91-48 C SUP	06/26/91	1	1	HIV-1 WR
3117	8	H	L91-48 D SUP	06/26/91	1	1	HIV-1 WR
3118	8	H	L91-48 E SUP	06/26/91	1	1	HIV-1 WR
3119	8	H	L91-48 F SUP	06/26/91	1	1	HIV-1 WR
3120	8	H	L91-48 G SUP	06/26/91	1	1	HIV-1 WR
3130	8	I	L91-48 A SUP	06/28/91	1	1	HIV-1 WR
3131	8	I	L91-48 C	06/28/91	1	1	HIV-1 WR
3132	8	I	L91-48 D SUP	06/28/91	1	1	HIV-1 WR
3133	8	I	L91-48 F SUP	06/28/91	1	1	HIV-1 WR
3134	8	I	L91-48 G	06/28/91	1	1	HIV-1 WR
3139	8	J	L91-48 A SUP	07/03/91	1	1	HIV-1 WR
3140	8	J	L91-48 C SUP	07/03/91	1	1	HIV-1 WR
3141	8	J	L91-48 D SUP	07/03/91	1	1	HIV-1 WR
3142	8	J	L91-48 E SUP	07/03/91	1	1	HIV-1 WR
3143	8	J	L91-48 F SUP	07/03/91	1	1	HIV-1 WR
3144	8	J	L91-48 G SUP	07/03/91	1	1	HIV-1 WR
3157	8	I	L91-48 A SUP	07/08/91	1	1	HIV-1 WR
3158	8	I	L91-48 C SUP	07/08/91	1	1	HIV-1 WR
3159	8	I	L91-48 D SUP	07/08/91	1	1	HIV-1 WR
3160	8	I	L91-48 E SUP	07/08/91	1	1	HIV-1 WR
3161	8	I	L91-48 F SUP	07/08/91	1	1	HIV-1 WR
3162	8	H	L91-48 G SUP	07/08/91	1	1	HIV-1 WR
3242	1	G	L91-75 E1 (8-29-91)	09/05/91	10	10	HIV-1 WR
3243	1	G	L91-75 E5 (8-29-91)	09/05/91	10	10	HIV-1 WR
3296	4	E	L91-75 A1 CLONE 8 HIV-1 #3935 SUPT1	12/05/91	1	1	HIV-1 WR
3297	4	E	L91-75 A2 CLONE 9 HIV-1 #3936 SUPT1	12/05/91	1	1	HIV-1 WR
3298	4	E	L91-75 B3 CLONE 8 HIV-1 #3938 CEMSS	12/05/91	1	1	HIV-1 WR
3349	4	F	L91-75 B1 CL7 HIV-1#3935 CEM-SS	12/31/91	1	1	HIV-1 WR
3350	4	F	L91-75 B1 CL11 HIV-1 #3935 CEM-SS	12/31/91	1	1	HIV-1 WR
3351	4	F	L91-75 B1 CL13 HIV-1 #3935 CEM-SS	12/31/91	2	2	HIV-1 WR
3352	4	F	L91-75 C1 CL1 HIV-1 #3935 H9	12/31/91	1	1	HIV-1 WR
3353	4	F	L91-75 C1 CL3 HIV-1 #3935 H9	12/31/91	1	1	HIV-1 WR
3354	4	F	L91-75 C1 CL4 HIV-1 #3935 H9	12/31/91	2	2	HIV-1 WR
3355	4	F	L91-75 C1 CL6 HIV-1 #3935 H9	12/31/91	2	2	HIV-1 WR
3356	4	F	L91-75 C1 CL7 HIV-1 #3935 H9	12/31/91	2	2	HIV-1 WR
3357	4	F	L91-75 E4 CL2 HIV-1 #3939 ET62	12/31/91	2	2	HIV-1 WR
3358	4	F	L91-75 E4 CL3 HIV-1 #3939 ET62	12/31/91	2	2	HIV-1 WR
3359	4	F	L91-75 E4 CL7 HIV-1 #3939 ET62	12/31/91	1	1	HIV-1 WR
3360	4	F	L91-75 E4 CL8 HIV-1 #3939 ET62	12/31/91	2	2	HIV-1 WR
3361	4	F	L91-75 E4 CL10 HIV-1 #3939 ET62	12/31/91	2	2	HIV-1 WR
3362	4	F	L91-75 E4 CL11 HIV-1 #3939 ET62	12/31/91	2	2	HIV-1 WR

APPENDIX B

SUMMARY OF ANIMAL MANIPULATIONS

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

June 30, 1992	Received nonhuman primates (TB testing performed between 6-30 and 7-16).
July 17, 1992	Physical examinations, fecal cultures, heparinized blood to Dr. Suzanne Gartner, serum to Dr. Mark Lewis, blood for CBC and chemistry to Maryland Medical (all 16 monkeys).
July 24, 1992	Canine teeth blunted on 255L, 256L, 257L, 258L. All 16 monkeys - serum to Dr. Mark Lewis, blood for CBC and chemistry to Maryland Medical.
July 31, 1992	255L, 256L - 20 ml heparinized blood, 257L, 258L - 15 ml heparinized blood to Dr. Suzanne Gartner.
August 4, 1992	257L - 25 ml heparinized blood, 258L - 45 ml heparinized blood to Dr. Suzanne Gartner.
August 6, 1992	252L, 253L, 254L, 259L - 5 ml heparinized blood to Dr. Yvonne Rosenberg; 255L, 256L, 257L, 258L - inoculate with HIV-1; 252L, 253L, 254L, 259L, 260L, 261L, 262L, 263L, 264L, 265L, 266L, 267L - 1 ml EDTA anticoagulated blood to Dr. Mark Lewis. All 16 monkeys - blood for CBC and chemistry to Maryland Medical.
August 14, 1992	Physical examinations on 255L, 256L, 257L, 258L.
August 21, 1992	255L, 256L, 257L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
August 28, 1992	255L, 256L, 257L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
September 4, 1992	255L, 256L, 257L, 258L - heparinized blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

September 16, 1992	260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood and sera to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations.
September 18, 1992	257L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	255L, 256L - lymph nodes, heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	253L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations. These two nonhuman primates were also inoculated with material from other positive nonhuman primates.
	252L, 254L, 259L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations.
October 1, 1992	255L, 256L - Blood to Maryland Medical for CBC.
October 2, 1992	253L, 266L - heparinized blood and clotted blood (253L only) to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	255L, 256L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for chemistry to Maryland Medical; physical examinations.
	257L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations.
October 9, 1992	253L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

October 15, 1992	252L, 254L, 259L, 260L, 261L, 263L, 264L, 265L, 267L - 2 ml heparinized blood to Dr. Mark Lewis; blood for CBC to Maryland Medical; physical examinations.
	253L - clotted blood to Dr. Suzanne Gartner.
October 16, 1992	266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical.
October 23, 1992	257L - clotted blood to Dr. Suzanne Gartner.
	255L, 256L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
October 30, 1992	253L, 257L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
November 6, 1992	255L, 256L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations.
	257L - clotted blood to Dr. Suzanne Gartner.
November 13, 1992	253L, 257L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations.
November 18, 1992	252L, 254L, 259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC and chemistry to Maryland Medical; physical examinations.
November 20, 1992	255L, 256L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

November 30, 1992	253L, 257L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
December 4, 1992	255L, 256L, 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
December 11, 1992	253L, 257L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
December 17, 1992	252L, 254L, 259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC to Maryland Medical; physical examinations.
December 18, 1992	255L, 256L 258L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
December 23, 1992	253L, 257L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
December 29, 1992	253L, 256L - inoculated; heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations. 253L - lymph node biopsy to Dr. Suzanne Gartner.
January 4, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
January 5, 1993	253L, 256L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

January 12, 1993	253L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
January 14, 1993	252L, 254L, 259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC to Maryland Medical; physical examinations.
January 19, 1993	253L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical, physical examinations.
	252L, 254L - inoculated; heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
January 26, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	252L, 254L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
February 2, 1993	253L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	252L, 254L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
February 9, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations; blood to Microbiological Associates for SRV testing.
	252L, 254L - heparinized blood and clotted to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations; blood to Microbiological Associates for SRV testing.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

February 12, 1993	259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC and chemistry to Maryland Medical; blood for Microbiological Associates for SRV testing; physical examinations.
February 16, 1993	253L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; blood to Microbiological Associates for SRV testing; physical examinations.
	252L, 254L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; blood to Microbiological Associates for SRV testing; physical examinations.
February 23, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	252L, 253L, 254L, 256L - clotted blood to Dr. Suzanne Gartner
March 2, 1993	253L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	252L, 254L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
March 10, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
March 12, 1993	259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC to Maryland Medical; physical examinations.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

March 16, 1993	253L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	252L, 254L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC and chemistry to Maryland Medical; physical examinations.
March 23, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
March 30, 1993	252L, 253L, 254L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
April 6, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
April 13, 1993	252L, 253L, 254L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
	259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC to Maryland Medical; physical examinations.
April 20, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
April 27, 1993	252L, 253L, 254L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.

ANIMAL MANIPULATIONS

JUNE 1992 THROUGH JUNE 1993

May 4, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
May 11, 1993	252L, 253L, 254L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
May 13, 1993	255L, 257L, 258L - lymph node biopsies to Dr. Suzanne Gartner.
May 14, 1993	259L, 260L, 261L, 262L, 263L, 264L, 265L, 267L - heparinized blood to Dr. Mark Lewis; blood for CBC and chemistry to Maryland Medical; physical examinations.
May 18, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
May 25, 1993	252L, 253L, 254L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
June 1, 1993	255L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
June 8, 1993	252L, 253L, 254L, 256L, 257L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
June 15, 1993	255L, 257L, 258L, 266L - heparinized blood and clotted blood to Dr. Suzanne Gartner; blood for CBC to Maryland Medical; physical examinations.
June 27, 1993	All 16 nonhuman primates were transferred to Frederick Research Center.

APPENDIX C

SUMMARY OF HEMATOLOGY, CLINICAL CHEMISTRY AND PHYSICAL EXAMINATIONS

Animal No.: 252L (HLA 2354)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92	L.I. 15 x 28 mm	T97^{2}°F; marked sex skin enlargement; accumulation of dental tartar; vomited under Ketaset for cage change; left inguinal lymph node larger than right; mild dehydration and formed feces	7.22 kg	
8/06/92			7.06 kg	
9/18/92			7.48 kg	
9/21/92	L.I. 11 x 15 mm; R.I. 12 x 16 mm; L.A. No ID; R.A. 10 x 10 mm	T99^{4}°F; excellent mucus membrane color; no dehydration; accumulating abdominal fat; much improved hair coat; mild bilateral expiratory rales in spite of atrophine IM; no nasal discharge	7.24 kg	
10/15/92			7.16 kg	
11/18/92			7.20 kg	
12/17/92			6.96 kg	
1/14/93	L.I. 12 x 33 mm; R.I. 16 x 32 mm; L.A. 9 x 28 mm; R.A. 9 x 26 mm	T99^{8}°F; profuse mucoid vaginal discharge; bilateral inguinal lymphadenopathy; bilateral axillary lymphadenopathy; spleen normal in size; dental tartar accumulation without oral lesions; heart and lungs clear; no dehydration	7.42 kg	
1/19/93		Inoculated 9:40 a.m.	7.46 kg	Inoculated
1/26/93	L.I. 12 x 32 mm; R.I. 12 x 17 mm; L.A. 11 x 24 mm; R.A. 10 x 26 mm	T99^{8}°F; no dehydration; no rash; excellent mucus membrane color; dental tartar accumulation; heart and lungs clear; very small abrasion (one) on each nipple	7.6 kg	
2/02/93	L.I. 11 x 22 mm; R.I. 15 x 30 mm; L.A. 11 x 21 mm; R.A. 11 x 32 mm	T98^{8}°F; excellent mucus membrane color; dental tartar accumulation; mild dehydration; multiple peripheral lymphadenopathies; no spleen enlargement or rash; heart and lungs clear; very swollen sex skin	7.84 kg	

Animal No.: 252L (HLA 2354)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
2/09/93	L.I. 12 x 32 mm; R.I. 18 x 36 mm; L.A. 8 x 29 mm; R.A. 9 x 24 mm	T99^{4o}F; excellent mucus membrane color but dental tartar accumulation; no dehydration; no splenomegaly; heart and lungs clear	7.76 kg	
2/16/93	L.I. 10 x 26 mm; R.I. 12 x 33 mm; L.A. 11 x 25 mm; R.A. 12 x 27 mm	T99^{4o}F; mild dental tartar accumulation; no dehydration; no rash; excellent mucus membrane color; small spleen; self-epliation of hair from dorsal metatarsus; mild dry expiratory rales of anterior chest wall; no other findings	7.32 kg	
3/02/93	L.I. 20 x 12 mm; R.I. 5 x 5 mm; L.A. No ID; R.A. No ID	T99^{8o}F; pale mucus membranes; no rash; normal hydration	7.74 kg	
3/16/93	L.I. 12 x 26 mm; R.I. 12 x 17 mm; L.A. 9 x 26 mm; R.A. 12 x 32 mm	T98^{6o}F; pale mucus membranes; peridontal disease; no rash; no spleen enlargement; mild dehydration; heart and lungs clear	7.56 kg	
3/30/93	L.I. 13 x 29 mm; R.I. 9 x 17 mm; L.A. 9 x 29 mm; R.A. 12 x 33 mm	T100^{o}F; small spleen; no dehydration; no rash; excellent mucus membrane color; dental tartar accumulation; heart and lungs clear; no other findings	7.54 kg	
4/13/93	L.I. 14 x 31 mm; R.I. 12 x 16 mm; L.A. 7 x 22 mm; R.A. 10 x 27 mm	T99^{2o}F; dental tartar accumulation; excellent mucus membrane color; much abdominal fat accumulation; small spleen; no dehydration; heart and lungs clear; no rash; no other findings	7.18 kg	
4/27/93	L.I. 5 x 5 mm; R.I. 10 x 8 mm; L.A. 5 x 5 mm;	T100^{4o}F; no rash; hydration normal; mucus membrane color looks good	7.44 kg	

Animal No.: 252L (HLA 2354)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
5/11/93	L.I. 7 x 24 mm; R.I. 14 x 36 mm; L.A. 6 x 32 mm; R.A. 11 x 27 mm	No rash; no dehydration; no splenomegaly; abdominal palpation normal; excellent mucus membrane color; dental tartar accumulation; heart and lungs clear; no other findings	7.86 kg	
5/25/93	L.I. 13 x 32 mm; R.I. 12 x 32 mm; L.A. 7 x 25 mm; R.A. 9 x 30 mm	T100^{4o}F; excellent mucus membrane color; dental tartar accumulation; no rash; no spleen enlargement; no oral lesions; no dehydration; heart and lungs clear; no other findings	7.46 kg	
6/08/93	L.I. 14 x 45 mm; R.I. 14 x 33 mm; L.A. 11 x 27 mm; R.A. 11 x 36 mm	T100^{4o}F; mild dehydration; heart and lungs clear; no oral lesions; dental tartar accumulation; spleen not enlarged; no other findings	7.94 kg	

Animal No.: 253L (HLA 2360)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92	L.I. 12 x 27 mm	T99^{4o}F; thickened spleen; left inguinal 2X size of right; full adult dentition without dental tartar; left ear tag site inflammed and bleeding; get permission to remove tags	4.85 kg	
8/06/92			5.06 kg	
9/18/92		Whole blood by left saphenous; cells central lower abdominal quadrant; total volume IP - 1.8 ml; total volume IV - 12 ml; clip and aseptic prep both sites after sedation; transfusion flushed with 10 ml sterile saline		Inoculated IV and IP
9/21/92	L.I. 6 x 11 mm; R.I. 6 x 10 mm; L.A. 10 x 15 mm; R.A. 6 x 19 mm	T100^{o}F; severely dehydrated; linear red rash of ventral abdominal wall; no spleen enlargement; cyanotic lips; pale mucus membranes; heart and lungs not ascultated, coming up and struggling; 100 ml sq. lactated ringers	5.24 kg	
9/25/92	L.I. 9 x 9 mm; R.I. 9 x 22 mm; L.A. 9 x 20 mm; R.A. 7 x 16 mm	T100^{2o}F; moderate dehydration; huge spleen (fills up my hand); no rash; no oral lesions and excellent mucus membrane color; heart and lungs normal	5.28 kg	
10/02/92	L.I. 15 x 15 mm; R.I. 15 x 15 mm; L.A. 6 x 6 mm; R.A. 6 x 6 mm	T100^{6o}F; slight dehydration	5.38 kg	

Animal No.: 253L (HLA 2360)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
10/09/92	L.I. 6 x 17 mm; R.I. 3 x 5 mm; L.A. 3 x 12 mm*; R.A. 3 x 12 mm*	T100°F; right femoral triangle has golf-ball size organized, hard hematoma probably from last bleed; ghost-white mucus membrane color and blackish blood color; spleen much smaller than last physical; moderate dehydration; place Tang on cage; * both axillary lymph nodes are actually small pea size chains trapped in fat so measurement is inaccurate; 100 ml SQ saline post blood collection; heart and lungs clear	5.4 kg	
10/15/92		T100.8°F; Sedated for physical; hard organized hematoma or soft tissue mass of right femoral triangle noted last Friday (10/9); prepped and tapped to determine if filled with clotted blood or an abcess; on venipuncture at edge of mass obvious arterial hemorrhage ensued with a total blood loss of approximately 80 ml on floor and another 80 ml in hematoma of right femoral triangle; Rx: 200 ml SQ lactated ringers; 250 ml IV ringers by left saphenous vein; .5 ml IM Atropine; .2 ml IV Ketaset; .4 ml IM Ketaset; 200 ml 5% dextrose in ringers IV; T94°F	5.46 kg	
10/30/92	L.I. 6 x 10 mm; R.I. 7 x 14 mm; L.A. Not palpable; R.A. 4 x 12 mm	T99.6°F; enlarged spleen; tendency to form new hematoma even with 22-gauge needle and "clean stick"; mild dehydration	5.48 kg	
11/13/92	L.I. 5 x 15 mm; R.I. 6 x 14 mm; L.A. 7 x 14 mm; R.A. 5 x 11 mm	T101.4°F; very large spleen (exceeds the palm of my hand); left submandibular lymph node slightly larger than right; heart and lungs clear; excellent mucus membrane color	5.55 kg	
11/30/92	L.I. 9 x 16 mm; R.I. 6 x 12 mm; L.A. 3 x 12 mm; R.A. 5 x 10 mm	T100.8°F; very small spleen; moderate dehydration; heart and lungs clear; excellent mucus membrane color in spite of earlier severe blood loss	5.76 kg	

Animal No.: 253L (HLA 2360)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
12/11/92	L.I. 10 x 10 mm; R.I. 10 x 10 mm; L.A. 10 x 10 mm; R.A. 12 x 12 mm	T100^{6o}F	5.85 kg	
12/23/92	L.I. 6 x 16 mm; R.I. 5 x 19 mm; L.A. 5 x 11 mm; R.A. 5 x 16 mm	T100^{2o}F; spleen enlarged; excellent mucus membrane color; no dehydration; no rash	5.86 kg	
12/29/92		T95^{o}F; Inguinal lymph node biopsy of right inguinal node; inoculated IV	5.92 kg	Inoculated; Surgery-lymph node biopsy
1/05/93	L.I. 9 x 26 mm; (Partly scar tissue from biopsy) R.I. 10 x 15 mm; L.A. 11 x 16 mm; R.A. 6 x 17 mm	T101^{4o}F; ventral abdominal rash which is red and papular; dry exfoliative dermatitis of legs; huge spleen (fills my hand); right costal margin has a palpable liver; cyanotic lips; severe dehydration; no oral lesions noted; heart and lungs clear; feels thin	5.92 kg	
1/12/93	L.I. 6 x 15 mm; R.I. 7 x 9 mm; L.A. 5 x 16 mm; R.A. 5 x 12 mm	T98^{8o}F; mild dehydration; spleen now normal in size; no rash; heart and lungs clear; cyanotic lips from high volume bleed; no oral lesions	5.98 kg	
1/19/93	L.I. 11 x 22 mm; R.I. 3 x 4 mm (excisional biopsy site); L.A. 5 x 22 mm; R.A. 7 x 23 mm	T101^{4o}F; small spleen; cyanotic lips; no rash; excellent mucus membrane color; heart and lungs clear; mild dehydration; right inguinal surgery healed	6.0 kg	

Animal No.: 253L (HLA 2360)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
2/02/93	L.I. 4 x 12 mm; R.I. Scar tissue; L.A. 5 x 20 mm; R.A. 6 x 17 mm	T99^{4o}F; mild dehydration; thickened spleen; seems thin for body structure; excellent mucus membrane color; no rash; heart and lungs clear	5.92 kg	
3/02/93	L.I. 20 x 10 mm; R.I. 5 x 5 mm; L.A. 16 x 16 mm; R.A. 15 x 15 mm	T102°F; no rash; normal hydration; good mucus membrane color	6.22 kg	
3/16/93	L.I. 6 x 14 mm; R.I. 2 x 8 mm (Scar tissue); L.A. 9 x 16 mm; R.A. 5 x 17 mm	T102^{2o}F; moderate dehydration; enlarged spleen (exceeds the palm of my hand); left submandibular lymph node unilaterally enlarged; excellent mucus membrane color; mild gingivitis; heart and lungs clear	6.4 kg	
3/30/93	L.I. 6 x 17 mm; R.I. Scar tissue only; L.A. 5 x 24 mm; R.A. 6 x 21 mm	T99^{6o}F; mild dehydration; multiple brownish ecchymotic hemorrhages of right inner arm without evidence of associated puritis or rash; heart and lungs clear; excellent mucus membrane color; small scrape of first and third fingertips on left hand		
4/13/93	L.I. 6 x 21 mm; R.I. 7 x 12 mm; L.A. 10 x 20 mm; R.A. 6 x 26 mm	T101^{4o}F; no oral lesions; excellent mucus membrane color; enlarged spleen; heart and lungs clear; no rash; no dehydration; no other findings	6.5 kg	
4/27/93	L.I. 8 x 6 mm; R.I. 10 x 5 mm; L.A. 10 x 15 mm; R.A. 8 x 8 mm	T101^{6o}F; no rash; hydration normal; mucus membranes look good	6.72 kg	
5/11/93	L.I. 4 x 12 mm; R.I. 2 x 3 mm; L.A. 6 x 20 mm; R.A. 10 x 15 mm	T101^{2o}F; splenomegaly (fills the palm of my hand); moderate dehydration; no rash; heart and lungs clear; cyanotic lips once sedated; no oral lesions and excellent mucus membrane color; seems thin for body size; awakes very quickly-raise Ketaset dose by .2 ml	6.76 kg	

Animal No.: 253L (HA 2360)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
5/25/93	L.I. 9 x 12 mm; R.I. 3 x 5 mm; L.A. 11 x 16 mm; R.A. 10 x 20 mm	T100.8°F; enlarged spleen; no rash; no dehydration; left submandibular lymph node larger than right; gingivitis; excellent mucus membrane color; no oral lesions; heart and lungs clear; no other findings	7.0 kg	

Animal No.: 254L (HLA 2363)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T99^{8o}F; only one red top tube drawn due to small size of animal; monkey turned blue as blood was collected; missing one deciduous lower incisor; no lymphadenopathy; mild tattoo-associated dermatitis; tachycardia without femoral pulse after blood collection	1.60 kg	
8/06/92			1.7 kg	
9/18/92			1.92 kg	
9/21/92		T102^{2o}F; axillary and inguinal lymph nodes too small to isolate for measurement; cyanotic lips once sedated; no dehydration; no spleen enlargement; lost first incisor left mandible; excellent remaining dentition; excellent mucus membrane color; no other findings	1.82 kg	
10/15/92			2.0 kg	
11/18/92			2.12 kg	
12/17/92			2.18 kg	
1/14/93	L.I. 3 x 3 mm; R.I. 2 x 4 mm; L.A. Too small to ID; R.A. Too small to ID	T101^{4o}F; mildly enlarged spleen relative to body size; complete loss of lower mandibular incisor; excellent mucus membrane color; heart and lungs clear; no other findings	2.32 kg	
1/19/93		Inocualted at 9:48 a.m.	2.34 kg	Inoculated

Animal No.: 254L (HLA 2363)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
1/26/93	L.I. 4 x 6 mm (Skin fold thickness); R.I. Too small to ID; L.A. Too small to ID; R.A. Too small to ID	T99^{2o}F; mild dehydration; cyanotic lips and pale mucus membranes; lost deciduous I_1; enlarged spleen; clipper burn dermatitis and tape trauma of legs; heart and lungs clear;	2.32 kg	
2/02/93	L.I. 2 x 11 mm; R.I. 6 x 7 mm; L.A. Too small to ID; R.A. Too small to ID	T100^{6o}F; mild spleen enlargement; cyanotic lips; no rash; losing one deciduous incisor	2.38 kg	
2/09/93	L.I. 2 x 3 mm; R.I. 6 x 7 mm; L.A. No ID; R.A. 5 x 17 mm	T100^{2o}F; enlarged spleen; moderate dehydration; cyanotic lips and bluish mucus membranes after high volume blood collection; heart and lungs clear	2.38 kg	
2/16/93	L.I. 4 x 11 mm; R.I. 5 x 12 mm; L.A. No ID; R.A. 6 x 12 mm	T99^{8o}F; elongate enlarged spleen; left lower deciduous I_1 lost; excellent mucus membrane color; no dehydration or rash; faintly cyanotic lips once sedated; no other findings	2.38 kg	
3/02/93	L.I. 8 x 8 mm; R.I. 10 x 5 mm; L.A. 10 x 5 mm; R.A. 5 x 5 mm	T100^{6o}F; normal hydration; no rash; mucus membranes look fine	2.50 kg	
3/16/93	L.I. 3 x 10 mm; R.I. 3 x 7 mm; L.A. 7 x 12 mm; R.A. 4 x 12 mm	T100^{6o}F; mildly cyanotic lips once sedated; mild bilateral submandibular lymph node enlargement; loss of deciduous incisors; heart and lungs clear; pale mucus membranes; enlarged spleen relative to body size	2.6 kg	

Animal No.: 254L (HLA 2363)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
3/30/93	L.I. 4 x 14 mm; R.I. 3 x 12 mm; L.A. Too small to ID; R.A. Too small to ID	T100^{4}°F; enlarged spleen relative to body size; cyanotic lips; eyelids and mucus membranes once sedated; lost lower incisors deciduous teeth; heart and lungs clear; no rash	2.58 kg	
4/13/93	L.I. 3 x 11 mm; R.I. 5 x 10 mm; L.A. 5 x 7 mm; R.A. Too small to ID	T101^{6}°F; mildly cyanotic lips once sedated; mild dehydration; mildly enlarged spleen; no rash; excellent condition and body weight; heart and lungs clear; no other findings	2.6 kg	
4/27/93	L.I. Too small to isolate; R.I. Too small to isolate; L.A. Too small to isolate; R.A. 4 x 4 mm	T100^{8}°F; slight dehydration; no rash; mucus membrane color fine	2.72 kg	
5/11/93		T102^{6}°F; spleen enlarged; mild dehydration; heart and lungs clear; cyanotic lips once sedated; no oral lesions; loss of I_1; cyanotic mucus membranes; no rash; excellent hair coat and body weight	2.76 kg	
5/25/93	L.I. 4 x 11 mm; R.I. Too small to isolate; L.A. No ID; R.A. 9 x 15 mm	T101^{4}°F; spleen mildly enlarged relative to body size; no oral lesions; excellent mucus membrane color; no rash; heart and lungs clear; no other findings	2.8 kg	
6/08/93	L.I. 3 x 15 mm; R.I. 7 x 22 mm; L.A. 6 x 18 mm; R.A. 6 x 21 mm	T100°F; very enlarged spleen relative to body size; mild dehydration; cyanotic lips once sedated; no oral lesions noted; missing lower deciduous I_1	2.83 kg	

Animal No.: 255L (HLA 2366)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T100⁴°F; tattoo-associated dermatitis; otherwise appears in excellent health	2.3 kg	
8/06/92			2.44 kg	Inoculated
8/13/92	L.I. 10 x 21 mm; R.I. 12 x 22 mm; L.A. 4 x 5 mm; R.A. 7 x 21 mm	T100⁴°F; raised prominent inguinal lymph nodes bilaterally; red inguinal rash around both inguinal nodes; cyanotic lips once sedated; enlarged thick spleen; no conjunctivitis; mild dehydration	2.48 kg	
9/18/92		T91⁴°F; placed on heating pad and blanket; shallow respiration but regular; 10% body weight of blood removed post surgically; left axillary and left inguinal lymph nodes removed; heating additional fluids in hot water to administer; .2 ml IM Telazol as surgical anesthesia; 11:35 a.m. T92°F; respiration deeper, quicker, regular; unable to determine actual heart rate, appears quick and regular; 11:55 a.m. T92⁶°F; respiration deep, regular, quick, no change from 11:35; heart rate appears the same as 11:35; eye blink reflex is detectable; beginning to lift his head and shoulders; 12:05 p.m. T93⁸°F, attempting to climb out of crib unit; heart rate and respiration strong and quick; 12:15 p.m. continues attempt to climb out of crib unit; entire crib unit returned to cage; no seepage from incisions detected		Surgery: Left inguinal and left axillary lymph nodes removed
9/21/92		Left axillary suture line completely exposed but intact; SQ swelling and red skin probably from animal picking at it with fingers; place on SMZ-TMP pediatric suspension per os at 1 ml 2X day concealed in fruit for 10 days; NPO on Wednesday; no physical; no TB test; too weak to sedate; drinking Tang today		

Animal No.: 255L (HLA 2366)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
10/01/92			2.75 kg	
10/02/92		T100^{4o}F; no enlargement of lymph nodes	2.65 kg	
10/07/92		T100^{4o}F; moderate dehydration; axillary and inguinal suture lines completely healed without observable subcutaneous swelling; tremendous improvement in mucus membrane color; no lymphadenopathy; bandage-associated dermatitis of thorax only expressed as dry skin; suture removal from both surgical sites		
10/23/92	L.I. Removed; R.I. 3 x 3 mm; L.A. Removed; R.A. 2 x 4 mm (one pea-size palpable nodule)	T97^{8o}F; small spleen; left inguinal suture line completely healed; left axillary nothing left to palpate; suture line healed; bluish-pale mucus membranes; mild reddish flush to thorax	2.65 kg	
11/06/92	L.I. Scar only; R.I. 2 x 5 mm; L.A. Palpable scar tissue; R.A. Too small to ID	T99^{6o}F; no significant findings	2.84 kg	
11/20/92			2.84 kg	
11/23/92	L.I. Scar only; R.I. 5 x 8 mm; L.A. Scar only; R.A. 6 x 10 mm	T100^{4o}F; excellent mucus membrane color; appears in good health; very faint expiratory crepitus on both sides of chest	2.8 kg	
12/04/92	L.I. Scar tissue only; R.I. 3 x 5 mm; L.A. Scar tissue only; R.A. 6 x 15 mm	T100^{8o}F; no dehydration; excellent mucus membrane color; spleen normal in size; no other findings	2.90 kg	

Animal No.: 255L (HLA 2366)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
12/18/92	L.I. 2 x 3 mm; (Skin fold thickness); R.I. 3 x 11 mm; L.A. No ID; R.A. 3 x 9 mm	T100^{4o}F; spleen enlarged; excellent mucus membrane color; heart and lungs clear; mild tachycardia; no other findings	2.92 kg	
1/04/93	L.I. Not palpable; R.I. 7 x 12 mm; L.A. Not palpable; R.A. 6 x 13 mm	T99^{8o}F; spleen enlarged; lips cyanotic and gums pale once bled; no rash; heart and lungs clear; no dehydration	3.06 kg	
1/26/93	L.I. Scar only (Skin fold thickness); R.I. 2 x 3 mm; L.A. Scar only; R.A. 5 x 16 mm	T99^{8o}F; mild dehydration; no splenomegaly; excessive salivation while sedated; cyanotic lips and pale mucus membranes; heart and lungs clear	3.12 kg	
2/09/93	L.I. No ID; R.I. 4 x 10 mm; L.A. No ID; R.A. 3 x 19 mm	T101^{4o}F; mild dehydration; tachycardia from light sedation; no other findings	3.18 kg	
3/10/93	L.I. No ID; R.I. 4 x 10 mm; L.A. 4 x 8 mm; R.A. 6 x 14 mm	T100^{o}F; mild bilateral submandibular lymph node enlargement; excellent mucus membrane color; heart and lungs clear; no rash; no splenomegaly	3.40 kg	
3/23/93	L.I. 2 x 5 mm (Scar tissue); R.I. 6 x 7 mm; L.A. 5 x 12 mm; R.A. 6 x 16 mm	T100^{4o}F; enlarged spleen; excellent mucus membrane color; no oral lesions; no rash; accumulation of smegma at base of penis on scrotum; heart and lungs clear	3.52 kg	

Animal No.: 255L (HLA 2366)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/06/93	L.I. Scar tissue; R.I. 2 x 3 mm; L.A. 6 x 6 mm (Much fibrous tissue); R.A. 4 x 12 mm	T99^{8}°F; mild dehydration; small spleen; very mild submandibular lymph node enlargement; mild nasal crusting; excellent mucus membrane color; heart and lungs clear; no liquid component to nasal discharge; no rash	3.34 kg	
4/20/93	L.I. Scar only; R.I. 2 x 4 mm; L.A. 6 x 16 mm; R.A. 5 x 18 mm	T99^{6}°F; no rash; no dehydration; no splenomegaly; no oral lesion; mild lip cyanosis once sedated; heart and lungs clear; much accumulated smegma at base of penis; no other findings	3.62 kg	
5/04/93	L.I. 5 x 7 mm; R.I. 8 x 7 mm; L.A. 10 x 13 mm; R.A. 7 x 7 mm	T100^{4}°F; normal hydration; mucus membrane color looks fine; no rash	3.65 kg	
5/13/93		Lymph node biopsy: Post surgery 08:45 a.m., body temperature 94^{8}°F; begin warm lacated ringers and 5% dextrose IV; labored respiration (rapid) with bronchospasm, .2 ml IV atrophine; strong femoral pulse; 200 ml fluids IV and no urination; .2 ml IV atrophine; peripheral cyanosis; 15 mg of IV Lasix at 9:30 a.m. fluids complete 250 ml without urination; sequential body temperatures: 9:00 a.m., T = 97^{4}°F; 9:15 a.m., 93^{8}°F; 9:40 a.m. T = 92°F; 10:00 a.m. voluntary movement - removed from heat pad to cage; 9:50 a.m., T = 90^{2}°F; few drops of urine from IV Lasix; additional 50 ml IV fluids given by slow drip		
5/18/93	L.I. Removed; R.I. Removed; L.A. Removed; R.A. 7 x 18 mm	T101^{4}°F; skin sutures from right inguinal lymph node biopsy have been ripped out by animal; wound did not hemorrhage and appears to be contracting nicely; no pustular drainage noted; skin sutures not replaced; excellent mucus membrane color; no rash; no oral lesions; no spleen enlargement; heart and lungs clear; no other findings	3.76 kg	

Animal No.: 255L (HLA 2366)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
6/01/93	L.I. Removed; R.I. 7 x 9 mm (biopsied); L.A. Removed; R.A. 6 x 17 mm	T100^{4o}F; mild dehydration; excellent mucus membrane color; no rash; no oral lesions; spleen normal in size; heart and lungs clear; no other findings except healed biopsy	3.7 kg	
6/15/93	L.I. Removed; R.I. No ID; L.A. Removed; R.A. 8 x 22 mm	T99^{6o}F; no rash; no dehydration; 30 ml of total blood volume collected; 100 ml of SQ administered after blood collection; no spleen enlargement; pale mucus membranes but no oral lesions; heart and lungs clear; no other findings	3.88kg	

Animal No.: 256L (HLA 2364)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T101⁴⁰F; (very stressed by blood collection, high volume for size); tattoo-associated dermatitis; moderate to severe dehydration; place on Tang; gums are dry and bluish after blood collection but weak femoral pulse remains; tachycardia	2.30 kg	
7/31/92		Cold extremities and severe trembling; ashen mucus membranes but regular respiration; 40 ml IV lactated ringers		
8/06/92			2.46 kg	Inocul-ated
8/13/92	L.I. 2 x 3 mm; R.I. 3 x 4 mm; L.A. 2 x 3 mm; R.A. 2 x 2 mm	T101⁶⁰F; moderate dehydration; no rash or palpable lymphadenopathy; no splenomegaly; mild expiratory rales without nasal discharge	2.52 kg	
9/18/92		Post operative observations 12:15 p.m.- body temperature 91°F at completion of surgery-received 200 ml hot ringers in right saphenous vein; left axillary and left inguinal lymph nodes completely removed; .3 ml Telazol IM for anesthesia; 2% lidocaine block regionally to each lymph node; severe muscular tremors; hypothermia during surgery; placed on warm water blanket and blanketed; no hemorhage associated with surgical procedure; total blood volume collected decreased in order to lessen occurance of surgical shock as seen in 255L; animal tolerated collection of lesser blood volume much more successfully; both wounds bandaged post surgically; blood collection and bandaging completed at 12:30 p.m.; 12:50 p.m. body temperature 95²⁰F; respiration regular, shallow, quick; heart rate fast, strong,		Surgery: Left inguinal and left axillary lymph nodes completely removed

Animal No.: 256L (HLA 2364)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
9/18/92	(Continued)	regular; eyeblink reflex detectable; muscle tremors still present but decreased greatly; appears to be resting comfortably; 1:10 body temperature 96^{8o}F; heart rate and respiration same as 12:50; beginning to move head side to side and attempting to lift it up; muscle temors still evident but decreased further; 1:30 body temperature 98^{8o}F; respiratory rate has decreased, while depth of repiration has increased; heart rate quick, strong, and steady; muscle tremors have decreased; further lifting head and shoulders; also moving arms and legs; first attempt made to climb out of crib unit; 1:40 continues to attempt to climb out of crib unit; returned to cage, towels left behind; climbed out of crib unit as soon as placed in the cage.		
9/21/92		No physical; no TB test; too weak to sedate		
10/01/92			2.95 kg	
10/02/92	L.I. 5 x 5 mm; L.A. 6 x 6 mm; R.A. 7 x 7 mm	T100^{6o}F; slight dehydration	2.75 kg	
10/07/92		T100°F; scar tissue inflammation of left axillary incision probably related to self-mutilation by pulling at steel staples; left inguinal suture line well healed; moderate dehydration; spleen now seems very small and oral mucus membranes are cyanotic; mild tachycardia noted on Ketaset sedation accompanied by entire body muscular tremors not reflecting hypothermia		

Animal No.: 256L (HLA 2364)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
10/23/92	L.I. 5 x 6 mm; R.I. 2 x 2 mm; L.A. 3 x 6 mm (Feels mostly like scar tissue); R.A. 4 x 4 mm	T101^{8}°F; severe dehydration; left eye shows red irritation mark from TB test, spleen too small to palpate; mild tachycardia; cyanotic lips and bluish-white gums	2.88 kg	
11/06/92	L.I. Removed; R.I. 2 x 4 mm; L.A. 3 x 10 mm (Scar tissue); R.A. 4 x 11 mm	No significant findings	2.88 kg	
11/20/92			3.02 kg	
11/23/92	L.I. Scar tissue only; R.I. 6 x 7 mm; L.A. Scar only; R.A. 3 x 2 mm	T101^{8}°F; spleen normal in size; accumulating abdominal fat; faintly cyanotic lips and gums once sedated; no other findings	2.94 kg	
12/04/92	L.I. Scar tissue only; R.I. 4 x 6 mm; L.A. 5 x 11 mm; R.A. 7 x 18 mm	T101^{2}°F; moderate dehydration; spleen is small; cyanotic lips once sedated; very faint inspiratory rales of left chest wall	3.08 kg	
12/18/92	L.I. No ID; R.I. 2 x 4 mm; L.A. 7 x 11 mm; R.A. 3 x 10 mm (feels like partly fat)	T102°F; very small spleen, difficult to isolate; cyanotic lips and pale mucus membranes once sedated; heart and lungs clear	3.18 kg	
12/29/92		Blood collection; IV fluids to stabilize shock and inoculation	3.20 kg	Inoculated

Animal No.: 256L (HLA 2364)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
1/05/93	L.I. 2 x 2 mm (Skin fold thickness); R.I. 5 x 6 mm; L.A. 4 x 5 mm (feeks like scar tissue); R.A. 4 x 6 mm	T101^{4o}F; spleen not palpable; very pale mucus membranes and cold extremities; very mild peripheral edema; no rash; moderate dehydration; 60 ml SQ lactated ringers	3.36 kg	
1/19/93	L.I. No ID; R.I. 2 x 4 mm; L.A. No ID; R.A. 3 x 6 mm (only pea-sized or smaller nodule in fascia)	T100^{8o}F; moderate dehydration; cyanotic lips and pale mucus membranes in spite of rest from blood collection; observed PCV carefully; tachycardia but palpable femoral pulse; 60 ml SQ fluids; cyanotic eyelids and slow to recover from sedation	3.36 kg	
2/02/93	L.I. Too small to ID; R.I. Too small to ID; L.A. Too small to ID; R.A. 6 x 8 mm	T100^{6o}F; moderate dehydration; cyanotic lips once sedated; small spleen; mild tachycardia from light sedation; blue mucus membranes	3.4 kg	
2/16/93	L.I. No ID; R.I. 2 x 6 mm; L.A. No ID; R.A. 3 x 15 mm (much fat and connective tissue)	T101^{8o}F; small spleen; mild dehydration; cyanotic lips and bluish mucus membranes; excellent heart and lungs; no other findings	3.4 kg	
3/02/93	L.I. 7 x 7 mm; R.I. No ID; L.A. 6 x 6 mm; R.A. 5 x 5 mm	T100^{8o}F; Hydration normal; no rash	3.46 kg	

Animal No.: 256L (HLA 2364)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
3/16/93	L.I. Too small to ID; R.I. 3 x 3 mm; L.A. 5 x 12 mm; R.A. 4 x 12 mm	T101.8°F; small spleen; very pale mucus membranes and cyanotic lips once sedated; no rash; no peridontal disease; heart and lungs clear; mild tachycardia	3.53 kg	
3/30/93	L.I. Too small to ID; R.I. Too small to ID; L.A. 9 x 21 mm; R.A. 7 x 28 mm	T101.4°F; moderate dehydration; small spleen; bilateral submandibular lymph node enlargement; pale mucus membranes after blood collection; cyanotic lips; heart and lungs clear; tachycardia; no rash	3.62 kg	
4/13/93	L.I. Too small to isolate; R.I. Too small to isolate; L.A. 3 x 12 mm; R.A. 4 x 14 mm	T101.4°F; excellent mucus membrane color and excellent dentition; no rash; no spleen enlargement; no dehydration; heart and lungs clear; good hair coat and body weight	3.68 kg	
4/27/93	L.I. Too small to isolate; R.I. 5 x 5 mm; L.A. 12 x 12 mm; R.A. 12 x 10 mm	T101.8°F; slight dehydration; no rash; mucus membrane color is fine	3.82 kg	
5/11/93	L.I. Too small to isolate; R.I. Too small to isolate; L.A. 6 x 15 mm; R.A. Too small to isolate	T100.8°F; moderate dehydration; small spleen; no rash; pale mucus membranes and cyanotic lips once sedated; no oral lesions; excellent hair coat and body weight; heart and lungs clear; no other findings	3.92 kg	
5/25/93	L.I. No ID; R.I. No ID; L.A. 6 x 22 mm; R.A. 7 x 22 mm	T101.6°F; mild dehydration; mildly cyanotic lips once sedated; no oral lesions or rash; no splenomegaly; heart and lungs clear; no other findings except small healed scrape on right lower arm		

Animal No.: 256L (HLA 2364)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
6/08/93	L.I. Skin fold only; R.I. Skin fold only; L.A. 5 x 18 mm; R.A. 3 x 16 mm	T100°F; no rash; no spleen enlargement; mild dehydration; cyanotic lips once sedated; pale mucus membranes; no oral lesions; tachycardia once sedated; heart and lungs clear	4.02 kg	

Animal No.: 257L (HLA 2380)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T101²⁰F; small ulceration of upper lip and dental tartar accumulation; adult dentition; no other findings	4.2 kg	
7/31/92		Bilateral mild nose bleed on Ketaset recovery; no evidence of difficult recovery or blow; mild trembling and less pale than 256L		
8/04/92			4.44 kg	
8/06/92			4.36 kg	Inoculated
8/13/92	L.I. 4 x 6 mm; R.I. 8 x 10 mm; L.A. Not definable; R.A. Not definable	T102°F; no rash; no splenomegaly; no lymphadenopathy; tachycardia once sedated with faint lip cyanosis but strong femoral pulse	4.44 kg	
9/18/92			4.70 kg	
9/21/92	L.I. 4 x 7 mm; R.I. 3 x 7 mm; L.A. 3 x 8 mm; R.A. 2 x 6 mm	T101°F; mild dehydration; teeth need cleaning; red, normal mucus membranes; small scratch marks of left femoral triangle, probable puritis or soreness from venipuncture	4.48 kg	
10/02/92	L.I. 10 x 10 mm; R.I. 8 x 8 mm; L.A. 7 x 7 mm; R.A. 8 x 8 mm	T100²⁰F	4.74 kg	

Animal No.: 257L (HLA 2380)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
10/14/92		Total dose Telazol .6 ml IM; 37 ml blood collected; 30 ml hep., one red top and one CBC tube (three bone marrow taps); right inguinal lymph node taken; 120 ml SQ lactated ringers; T92^{4o}F at surgery conclusion; slow pulse and shallow slow respiration; very pale and cyanotic; 120 ml warm 5% dextrose IV by slow push through left saphenous vein at the conclusion of the inoculation; animal wrapped in towels and observed in cage for recovery; inoculation: IV 4 ml left saphenous vein followed by 7 ml flush with lactated ringers and leg taped off 12:30 p.m.; some voluntary movement in cage; second T89^{8o}F; .2 ml IM Talwin; 1:40 p.m. rising temperature		Inoculated, surgery
10/23/92	L.I. 7 x 12 mm; R.I. Removed; L.A. Not palpable; R.A. Not palpable	T99^{8o}F; right inguinal sutures ripped out and central wet drainage with swelling; central sternal bone marrow tap completely healed; left eye TB test +1 red and slightly swollen; excellent mucus membrane color; small spleen; moderate dehydration	4.62 kg	
10/30/92	L.I. 5 x 7 mm; R.I. Pea size *; L.A. Not palpable; R.A. Not palpable	T100^{4o}F; very small spleen; excessive dental tartar accumulation; excellent gum color; tachycardia from light sedation; * likely fibrous tissue	4.92 kg	
11/06/92	L.I. 3 x 2 mm (skin fold thickness); R.I. 4 x 7 mm (feels like scar tissue); L.A. No ID; R.A. 7 x 12 mm	T101^{4o}F; excessive dental tartar; very small spleen; tachycardia from light sedation; seems thin for body size	4.82 kg	

Animal No.: 257L (HLA 2380)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
11/13/92	L.I. Too small to ID; R.I. Too small to ID; L.A. 2 x 4 mm; R.A. 3 x 10 mm	T100^{8o}F; thin body mass relative to skeletal size; large spleen; excellent mucus membrane color; heart and lungs clear	4.94 kg	
11/30/92	L.I. 3 x 10 mm; R.I. 5 x 8 mm; L.A. 6 x 10 mm; R.A. 5 x 7 mm	T100^{2o}F; enlarged spleen; moderate dehydration; excellent mucus membrane color; tachycardia from light sedation	5.06 kg	
12/11/92	L.I. No ID; R.I. No ID; L.A. 12 x 12 mm; R.A. 12 x 12 mm	T100^{4o}F	5.1 kg	
12/23/92	L.I. 6 x 10 mm; R.I. No ID; L.A. No ID; R.A. 4 x 5 mm	T99^{8o}F; moderate dehydration; small spleen; cyanotic lips but pink mucus membranes; tachycardia from light sedation	5.2 kg	
1/12/93	L.I. 6 x 18 mm; R.I. 2 x 11 mm; L.A. 11 x 11 mm; R.A. 7 x 17 mm	T98^{8o}F; cyanotic lips and pale mucus membranes; no rash or dehydration; heart and lungs clear; very small spleen	5.42 kg	
1/19/93	L.I. Too small to ID; R.I. Too small to ID; L.A. 2 x 8 mm (Lots of fibrous tissue); R.A. 6 x 19 mm	T100^{4o}F; rounded thickened spleen but only half the size of my hand; excellent mucus membrane color; heart and lungs clear	5.34 kg	
2/02/93	L.I. 5 x 12 mm; R.I. 7 x 8 mm; L.A. 7 x 17 mm; R.A. 10 x 19 mm	T100^{6o}F; unilateral enlargement of right axillary lymph node; very mild dental tartar accumulation; excellent mucus membrane color; erupting permanent canines; heart and lungs clear; no rash noted	5.28 kg	

Animal No.: 257L (HLA 2380)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
2/16/93	L.I. 6 x 12 mm; R.I. No ID; L.A. 10 x 22 mm; R.A. 5 x 14 mm	T101^{4o}F; linear raised scrotal skin lesion; very small spleen; red mucus membranes; mild gingival tartar accumulation; no gingivitis; no rash; tachycardia from light sedation; lungs clear	5.38 kg	
3/02/93	L.I. 7 x 7 mm; R.I. 8 x 8 mm; L.A. 10 x 10 mm; R.A. 15 x 10 mm	T102^{2o}F; hydration normal; no rash; mucus membrane color good	5.72 kg	
3/16/93	L.I. 4 x 7 mm; R.I. 4 x 5 mm; L.A. 5 x 12 mm; R.A. 5 x 12 mm	T101^{4o}F; very small spleen; feels thin; mild peridontal disease with dental tartar accumulation; tachycardia from light sedation; no rash; lungs clear	5.68 kg	
3/30/93	L.I. 5 x 12 mm; R.I. 4 x 6 mm (tissue scar); L.A. 7 x 22 mm; R.A. 8 x 17 mm	Small rounded spleen; no rash; no dehydration; excellent mucus membrane color; mild dental tartar accumulation; heart and lungs clear; excellent hair coat; no other findings		
4/13/93	L.I. 3 x 15 mm; R.I. 3 x 6 mm; L.A. 7 x 17 mm; R.A. 5 x 16 mm	T101^{8o}F; mild dehydration; red, irritated skin around penis; mild dental tartar accumulation; excellent mucus membrane color; heart and lungs clear; no other findings	5.6 kg	
4/27/93	L.I. 10 x 12 mm; R.I. 12 x 16 mm; L.A. 10 x 10 mm; R.A. 8 x 8 mm	No rash; hydration normal; mucus membranes look fine	5.9 kg	
5/11/93	L.I. 5 x 10 mm; R.I. Too small to isolate; L.A. 8 x 29 mm; R.A. 8 x 12 mm	T101^{6o}F; no dehydration; no rash; no splenomegaly; no oral lesions; dental tartar accumulation; excellent mucus membrane color; heart and lungs clear; excellent hair coat; no other findings	6.16 kg	

Animal No.: 257L (HLA 2380)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
5/13/93				Lymph Node Biopsy
5/25/93	L.I. No ID; R.I. No ID; L.A. 7 x 15 mm; R.A. 8 x 11 mm	T101^{8o}F; small spleen; no rash; surgical wound healed; mild tachycardia; excellent mucus membrane color; mild gingivitis; no oral lesions; no other findings	6.24 kg	
6/08/93	L.I. Removed; R.I. 6 x 11 mm; L.A. 6 x 25 mm; R.A. 6 x 18 mm	T101^{2o}F; very small spleen; no dehydration; no rash; no oral lesions; excellent mucus membrane color; heart and lungs clear; no other findings	6.1 kg	
6/15/93	L.I. Removed; R.I. 7 x 7 mm; L.A. 10 x 22 mm; R.A. 7 x 22 mm	T99^{8o}F; mildly enlarged spleen; no dehydration; excellent mucus membrane color; no oral lesions; heart and lungs clear; no other findings	6.38 kg	

Animal No.: 258L (HLA 2390)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92	L.I. 40 x 52 mm; R.I. 14 x 18 mm; L.A. 20 x 10 mm; R.A. 22 x 18 mm	T100^{8}°F; largest left inguinal lymph node I've ever seen except on HIV-1 apes; bilateral mild axillary lymph node enlargement	6.70 kg	
7/24/92		Left inguinal lymph node aspirate		
8/04/92			6.66 kg	
8/06/92			6.58 kg	Inoculated
8/13/92	L.I. 37 x 50 mm; R.I. 15 x 32 mm; L.A. 9 x 24 mm; R.A. 9 x 18 mm	T100^{8}°F; bilateral inguinal lymphadenopathy with left more marked than right; bilateral axillary lymph node enlargement; no palpable spleen enlargement; moderate dehydration	6.62 kg	
9/18/92			7.28 kg	
9/21/92	L.I. 24 x 42 mm; R.I. 15 x 22 mm; L.A. 8 x 27 mm; R.A. 11 x 19 mm	T100^{4}°F; moderate dehydration; gingivitis; seems thinner; no other findings	7.16 kg	
10/02/92	L.I. 15 x 15 mm; R.I. 20 x 30 mm; L.A. 10 x 10 mm; R.A. 20 x 20 mm	T100^{9}°F	7.60 kg	
10/14/92		T95°F; two bone marrow taps, right inguinal lymph node taken; 200 ml SQ lactated ringers and 120 ml IV 5% dextrose in ringers by right saphenous vein; second T = 94°F; wrapped in towels and observed blink response returning 12:30 p.m.; third T = 92^{8}°F; 1:15 p.m. placed on thermal blanket; wrapped in towels; .25 ml IM Talwin; 1:40 p.m. rising temperature	7.6 kg	

Animal No.: 258L (HLA 2390)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
10/23/92	L.I. 16 x 23 mm; R.I. 12 x 16 mm; L.A. 11 x 25 mm; R.A. 10 x 20 mm	T99°F; moderate dehydration; spleen too small to palpate; excessive dental tartar accumulation; lungs clear; right inguinal and sternal suture lines completely healed	7.44 kg	
11/06/92	L.I. 32 x 9 mm; R.I. 5 x 24 mm; L.A. 11 x 18 mm; R.A. 10 x 21 mm	T99⁴°F; mild vesicular rash of sex skin in area of labia; no evidence of rash in noted swollen sex skin around anus; moderate dehydration; worn teeth with dental tartar accumulation; no other findings	7.66 kg	
11/20/92			7.17 kg	
11/23/92	L.I. 11 x 28 mm; R.I. 11 x 24 mm; L.A. 6 x 12 mm; R.A. 12 x 23 mm	T100°F; hyperemic gums with excessive dental tartar accumulation; no other findings	7.2 kg	
12/04/92	L.I. 11 x 25 mm; R.I. 10 x 20 mm; L.A. 11 x 22 mm; R.A. 11 x 25 mm	T100⁴°F; gingivitis and massive dental tartar accumulation; excellent mucus membrane color; self-epilation of hair from left forearm; no other findings	7.40 kg	
12/18/92	L.I. 20 x 29 mm; R.I. 7 x 11 mm; L.A. 15 x 27 mm; R.A. 11 x 22 mm	T100⁴°F; mucoid vaginal discharge with swelling with hyperemia of sex skin; no spleen enlargement; mild dehydration; tachycardia from light sedation; very pale mucus membranes; no other findings	7.64 kg	
1/04/93	L.I. 16 x 42 mm; R.I. 10 x 23 mm; L.A. 15 x 30 mm; R.A. 11 x 23 mm	T100⁴°F; spleen rounded and enlarged; moderate dehydration; excessive dental tartar accumulation; heart and lungs clear; no rash; no other findings	7.62 kg	
1/26/93	L.I. 12 x 44 mm; R.I. 10 x 22 mm; L.A. 8 x 17 mm; R.A. 12 x 26 mm	T100⁴°F; self-epilation of hair from left lower forearm; mild dehydration; excellent mucus membrane color but dental tartar accumulation; heart and lungs clear	7.44 kg	

Animal No.: 258L (HLA 2390)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
2/09/93	L.I. 13 x 33 mm; R.I. 8 x 17 mm; L.A. 11 x 30 mm; R.A. 9 x 22 mm	T100^{2}°F; self-epilation of hair from each outer elbow; mild gingivitis and dental tartar accumulation; enlarged spleen exceeds the palm of my hand; decreased lung sounds on right thorax; no coughing known or evidence of nasal discharge	7.7 kg	
2/23/93	L.I. 18 x 51 mm; R.I. 10 x 24 mm; L.A. 11 x 32 mm; R.A. 7 x 31 mm	T100^{4}°F; no dehydration; no rash; enlarged spleen; inflamed hyperemic gums and dental tartar accumulation; heart and lungs clear; right upper I_3 broken; no other findings	7.6 kg	
3/10/93	L.I. 19 x 32 mm; R.I. 11 x 21 mm; L.A. 11 x 25 mm; R.A. 12 x 32 mm	T99^{4}°F; multiple peripheral lymphadenopathies; splenomegaly; excellent mucus membrane color; dental tartar accumulation; mild gingivitis; no rash; heart sounds slightly muffled at right lateral thorax	7.60 kg	
3/23/93	L.I. 17 x 42 mm; R.I. 9 x 20 mm; L.A. 12 x 34 mm; R.A. 10 x 32 mm	T99°F; no rash; no splenomegaly; excellent mucus membrane color; no dehydration; dental tartar accumulation; heart and lungs clear; no other findings	7.78 kg	
4/06/93	L.I. 12 x 42 mm; R.I. 5 x 12 mm; L.A. 10 x 27 mm; R.A. 10 x 29 mm	T99^{6}°F; ongoing menses; enlarged spleen (fills the palm of my hand); mild dehydration; heart and lungs clear; dental tartar accumulation; excellent mucus membrane color; no rash; no other findings	7.52 kg	
4/20/93	L.I. 22 x 30 mm; R.I. 11 x 25 mm; L.A. 9 x 28 mm; R.A. 14 x 22 mm	T99^{4}°F; thickened spleen (fills the palm of my hand); no rash; no dehydration; accumulating abdominal fat; inflamed gingiva and much dental tartar accumulation; heart and lungs clear; no other findings	7.56 kg	
5/04/93	L.A. 12 x 10 mm; R.A. 10 x 10 mm	Pale mucus membranes; normal hydration; no rash	7.7 kg	

Animal No.: 258L (HLA 2390)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
5/13/93		09:20 a.m. - Post surgery - lymph node biopsy; T = 98°F; 9:40 a.m. T = 95²°F; begin 500 ml IV lactated ringers; 10:15 a.m. T = 92⁸°F; strong femoral pulse; 10:30 a.m. mild cyanosis but voluntary movement; returned to cage		
5/18/93	L.I. 22 x 34 mm; R.I. 10 x 17 mm; L.A. 10 x 26 mm; R.A. 5 x 22 mm	T100²°F; skin layer of sutures over left inguinal lymph node biopsy are missing; no hemorrhage or infection observed and wound is well contracted; no further replacement or antibiotics at this time; dental tartar accumulation; pink mucus membranes; no oral lesions; thorax has dry scaly dermatitis in area of tattoo and between nipples; no splenomegaly; dermatitis also noted down backs of legs and may be associated with clip for IV fluids last week; heart and lungs clear; no other findings	7.52 kg	
6/01/93	L.I. 13 x 22 mm (biopsied); R.I. 11 x 26 mm; L.A. 12 x 27 mm; R.A. 9 x 26 mm	T99⁹°F; very mild dehydration; enlarged spleen; heart and lungs clear; no rash noted; excellent mucus membrane color; dental tartar accumulation; no other findings except healed biopsy	7.71 kg	
6/15/93		T100°F; moderate dehydration; gingivitis and excessive dental tartar accumulation; no rash; no oral lesions; heart and lungs clear; no other findings	7.74 kg	

Animal No.: 259L (HLA 2391)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92	L.I. No ID; R.I. 14 x 26 mm; L.A. 6 x 30 mm; R.A. 20 x 30 mm	T97^{8}F; right axillary and right inguinal lymph nodes enlarged; dental tartar accumulation; marked sex skin enlargement; left upper eyelid has torn lashes and lid margin	6.64 kg	
8/06/92			6.64 kg	
8/13/92	L.I. 8 x 18 mm; R.I. 15 x 25 mm; L.A. 4 x 7 mm; R.A. 5 x 10 mm	T97^{8}F; hair loss both arms, likely self-epilation; right inguinal lymph node enlargement; no rash; abdominal palpation normal; no dehydration; no other findings	6.80 kg	
9/18/92			6.34 kg	
9/21/92	L.I. 14 x 31 mm; R.I. 11 x 22 mm; L.A. 10 x 24 mm; R.A. 10 x 20 mm	T99^{8}F; gingivitis; dental tartar; accumulating abdominal fat; right femoral triangle has a massive bruise; heart and lungs clear; no rash; no dehydration	6.20 kg	
10/15/92			6.54 kg	
11/18/92			6.76 kg	
12/17/92			6.5 kg	
1/14/93	L.I. 11 x 33 mm; R.I. 16 x 28 mm; L.A. 10 x 28 mm; R.A. 9 x 29 mm	T98^{4}F; very red and swollen sex skin; bilateral lymphadenopathy of both inguinal and axillary lymph nodes; self-epilation of hair from both forearms without evidence of dermatitis; accumulation of abdominal fat precludes accurate estimate of spleen size; mildly torn left upper eyelid; dental tartar accumulation; heart and lungs clear; no other findings	6.86 kg	
2/12/93			6.90 kg	
3/12/93			6.7 kg	

Animal No.: 259L (HLA 2391)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/13/93	L.I. 10 x 25 mm; R.I. 12 x 27 mm; L.A. 8 x 17 mm; R.A. 6 x 22 mm	T99°F; no dehydration; accumulating abdominal fat; small spleen; self-epilation of hair from anterior tibias; dental tartar accumulation but excellent mucus membrane color; heart and lungs clear; no rash; no other findings	6.58 kg	

Animal No.: 260L (HLA 1183)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92	L.I. 7 x 10 mm; R.I. 4 x 11 mm; L.A. No ID; R.A. 7 x 9 mm	T99⁴°F; pale mucus membranes but excellent dentition; no dehydration; swollen sex skin; heart and lungs clear	2.5 kg	
8/06/92			2.76 kg	
8/21/92	L.I. 4 x 7 mm; R.I. 6 x 14 mm; L.A. Not palpable; R.A. Not palpable	T100⁴°F; swollen edematous sex skin almost appears as if she has a scrotum; nice teeth with good mucus membrane color; no splenomegaly; no dehydration	2.86 kg	
9/16/92	L.I. 7 x 10 mm; R.I. 4 x 11 mm; L.A. No ID; R.A. 7 x 9 mm	T98⁴°F; pale mucus membranes but excellent dentition; no dehydration; swollen sex skin; heart and lungs clear	3.0 kg	
10/15/92			3.14 kg	
11/18/92			3.16 kg	
11/23/92	L.I. 2 x 6 mm; R.I. 3 x 7 mm; L.A. 4 x 5 mm; R.A. 3 x 11 mm	T98°F; mild dehydration; very small spleen; excellent weight, hair coat, and gum color; heart and lungs clear	3.12 kg	
12/17/92			3.0 kg	
1/14/93	L.I. 7 x 10 mm; R.I. 4 x 6 mm; L.A. 4 x 6 mm; R.A. 5 x 9 mm	T100⁴°F; small rounded spleen; no dehydration; excellent mucus membrane color; usual right hand deformity; heart and lungs clear	3.14 kg	
2/12/93			3.14 kg	
3/12/93			3.28 kg	

Animal No.: 260L (HLA 1183)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/13/93	L.I. 3 x 3 mm (Skin fold only); R.I. 11 x 11 mm; L.A. 3 x 2 mm (Skin fold); R.A. 6 x 16 mm	T98^{2o}F; small spleen; no rash; heart and lungs clear; no dehydration; no other findings		

Animal No.: 261L (HLA 1444)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T98^{6o}F; dry pale mucus membranes once bled; claw-like deformities of both hands; moderate dehydration; missing left upper canine; massive dental tartar accumulation	3.56 kg	
8/06/92			3.70 kg	
8/21/92	L.I. 6 x 18 mm; R.I. 6 x 17 mm; L.A. 3 x 6 mm; R.A. 3 x 7 mm	T101^{4o}F; thickened spleen; excessive dental tartar and poor dentition; no other findings; ear clip removed	3.72 kg	
9/16/92	L.I. 8 x 9 mm; R.I. 3 x 5 mm; L A. No ID; R.A. 3 x 6 mm	T98^{8o}F; elongate spleen; inflamed gums and excessive dental tartar accumulation; no dehydration; heart and lungs clear		
10/15/92			3.68 kg	
11/18/92			3.45 kg	
11/23/92	L.I. 2 x 3 mm; R.I. No ID; L.A. No ID; R.A. 5 x 6 mm	T99^{4o}F; very small spleen; poor dentition; heart and lungs clear; no other findings	3.4 kg	
12/17/92			3.75 kg	
1/14/93	L.I. 2 x 5 mm; (Skin fold) R.I. 8 x 16 mm; L.A. 5 x 6 mm; R.A. 4 x 11 mm	T100^{4o}F; usual bilateral hand deformity; normal size spleen; excessive dental tartar; excellent mucus membrane color; no other findings	3.9 kg	
2/12/93			3.76 kg	
3/12/93			3.55 kg	

Animal No.: 261L (HLA 1444)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/13/93	L.I. 7 x 14 mm; R.I. 5 x 15 mm; L.A. 2 x 12 mm; R.A. 3 x 12 mm	T99^{8o}F; no rash; small spleen; accumulating abdominal fat; no dehydration; severe dental tartar accumulation; excellent mucus membrane color; heart and lungs clear; usual bilateral hand deformity	3.72 kg	

Animal No.: 262L (HLA 1568)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92	R.I. 10 x 15 mm	T97^{2o}F; mid-abdominal ping-pong ball size mass, hopefully fecal; right inguinal lymph node larger than left but still not impressive; two small cuts under chin; pale mucus membranes	4.20 kg	
8/06/92			4.86 kg	
8/21/92	L.I. 6 x 16 mm; R.I. 9 x 18 mm; L.A. Too small to isolate; R.A. Too small to isolate	T100^{4o}F; left ear infected from ear clip; bilateral mandibular serous draining wounds associated with canine teeth; getting "fat"; ear clip cut out and placed on penicillin 1 ml IM SID 7 days	4.9 kg	
9/16/92	L.I. 6 x 10 mm; R.I. 6 x 21 mm; L.A. 5 x 16 mm; R.A. 2 x 8 mm	T99^{6o}F; heart and lungs clear; both lower canines have produced mandibular thickening and tracts to skin; each is not draining at this time; ear has healed from tag problem; accumulating abdominal fat; pale mucus membranes and dental tartar accumulation	4.9 kg	
10/15/92			5.0 kg	
11/18/92			5.10 kg	
11/23/92	L.I. 7 x 17 mm; R.I. 9 x 16 mm; L.A. 5 x 16 mm; R.A. 6 x 19 mm	T98^{6o}F; accumulating abdominal fat; both lower canines infected with tracts into mandible; heart and lungs clear; too much abdominal fat to isolate spleen	5.04 kg	
12/17/92			4.92 kg	
1/14/93	L.I. 6 x 16 mm; R.I. 7 x 12 mm; L.A. 6 x 16 mm; R.A. 3 x 11 mm	T99^{8o}F; bilateral mandibular abcess tracts healed and dry; excellent mucus membrane color; chapped lips; accumulation of abdominal fat precludes spleen isolation; no dehydration; heart and lungs clear; no other findings	5.3 kg	
2/12/93			5.20 kg	
			5.3 kg	

Animal No.: 262L (HLA 1568)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/13/93	L.I. 6 x 24 mm; R.I. 11 x 15 mm; L.A. 5 x 18 mm; R.A. 9 x 22 mm	T99^{4o}F; no dehydration; no rash; marked accumulation of abdominal fat precludes isolation of spleen; bilateral dental decay of both lower canines with dry tracts of fistulous abcessation through mandible; excellent mucus membrane color; dental tartar accumulation; chapped lips with dry scale and peeling; heart and lungs clear; no other findings	5.34 kg	

Animal No.: 263L (HLA CQ1743)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T100^{6o}F; ashen mucus membranes and tachycardia post bleeding; no femoral pulse; much femoral triangle scar tissue	2.32 kg	
8/06/92			2.52 kg	
8/21/92	L.I. 6 x 10 mm; R.I. Skin fold thickness; L.A. 5 x 11 mm; R.A. 4 x 16 mm	T98^{8o}F; missing one half right ear, probably from tearing ear tag; no other findings; ear clip removed	2.54 kg	
9/16/92	L.I. 2 x 3 mm; R.I. 4 x 5 mm; L.A. 4 x 5 mm; R.A. 4 x 6 mm	T100^{8o}F; small in stature, not thin; heart and lungs clear; no dehydration; spleen normal; excellent gums and dentition	2.58 kg	
10/15/92			2.72 kg	
11/18/92			2.75 kg	
11/23/92		T100^{4o}F; peripheral lymph nodes too small to isolate for measurement; small gingival cut of lower gum line; heart and lungs clear; no dehydration	2.7 kg	
12/17/92			2.68 kg	
1/14/93	L.I. Too small to ID; R.I. Too small to ID ; L.A. 6 x 20 mm; R.A. 6 x 12 mm	T99^{8o}F; small spleen; excellent mucus membrane color and hydration; heart and lungs clear	2.86 kg	
2/12/93			3.0 kg	
3/12/93			3.08 kg	

Animal No.: 263L (HLA CQ1743)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/13/93	L.I. 5 x 11 mm; R.I. 3 x 3 mm; L.A. 6 x 22 mm; R.A. 6 x 16 mm	T100^{4o}F; dental decay of old retained deciduous upper left incisor; excellent mucus membrane color; no rash; no dehydration; heart and lungs clear; no other findings	3.12 kg	

Animal No.: 264L (HLA CQ1821)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T97.8°F; cold extremities and seems "shocky"; post bleeding tachycardia; severe dehydration; thin; massive scar tissue at both femoral triangles	2.12 kg	
8/06/92			2.23 kg	
8/21/92	L.I. Too small to isolate; R.I. Too small to isolate; L.A. Too small to isolate; R.A. Too small to isolate	T100°F; bright red dry dermatitis of right upper biceps; small black dot on tongue; great teeth; no splenomegaly; no other findings; ear clip removed	2.18 kg	
9/16/92	L.I. 3 x 4 mm; R.I. 3 x 4 mm; L.A. 7 x 11 mm; R.A. 7 x 11 mm	T98.8°F; very small hard spleen; small black blotch on central tongue and roof of hard palate; dentition excellent; left submandibular and cranial cervical left nodes can actually be isolated; focal flat small skin rash of right biceps	2.28 kg	
10/15/92			2.32 kg	
11/18/92			2.38 kg	
11/23/92	L.I. 3 x 4 mm; R.I. Too small to isolate; L.A. Too small to isolate; R.A. Too small to isolate	T99.8°F; very small spleen; small red "birth mark" on right inner arm; tachycardia; no other findings	2.3 kg	
12/17/92			2.32 kg	
1/14/93	L.I. 3 x 7 mm; R.I. No ID; L.A. No ID; R.A. No ID	T100.2°F; hair loss from distal tail; no other findings	2.4 kg	

Animal No.: 264L (HLA CQ1821)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
3/12/93			2.5 kg	
4/13/93	L.I. Too small to ID; R.I. 9 x 13 mm; L.A. 6 x 21 mm; R.A. 5 x 18 mm	T99^{8o}F; small spleen; no rash; no dehydration; excellent mucus membrane color; no dental tartar; tachycardia from light sedation; heart and lungs clear	2.6 kg	

Animal No.: 265L (HLA 2195)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T96°F; "shock" post bleeding; no body fat; very pale; ashen gums with dental tartar accumulation; no lymphadenopathy; moderate dehydration; no femoral pulse and tachycardia	1.92 kg	
8/06/92			2.04 kg	
8/21/92	L.I. 4 x 8 mm; R.I. 3 x 2 mm; L.A. Too small to ID; R.A. Too small to ID	T97^{8}°F; thickened spleen; no dehydration; mild gingivitis and dental tartar accumulation; no other findings; ear clip removed	1.98 kg	
9/16/92	L.I. 4 x 5 mm; R.I. 3 x 3 mm; L.A. 7 x 8 mm; R.A. 6 x 6 mm	T97^{2}°F; mild dehydration; mild dental tartar accumulation; no dental decay; enlarged spleen for this size animal; heart and lungs clear	1.98 kg	
10/15/92			2.2 kg	
11/18/92			2.10 kg	
11/23/92		T96^{2}°F; complete hair loss from tail; all peripheral lymph nodes are too small to isolate for measurement; spleen normal size; heart and lungs clear	2.08 kg	
12/17/92			2.06 kg	
1/14/93	L.I. 3 x 6 mm; R.I. 2 x 5 mm; L.A. No ID; R.A. No ID	T99^{2}°F; hair loss from entire length of tail; small well-defined spleen; seems thin; excellent mucus membrane color; no oral abnormalities noted; heart and lungs clear	2.08 kg	
2/12/93			2.02 kg	
3/12/93			2.06 kg	

Animal No.: 265L (HLA 2195)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
4/13/93	L.I. 4 x 14 mm; R.I. Too small to ID; L.A. Too small to ID; R.A. Too small to ID	T99^{6o}F; hair loss from distal tail; thin; moderate dehydration; small spleen; mild dental tartar accumulation; excellent mucus membrane color; no other findings	2.06 kg	

Animal No.: 266L (HLA 2197)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T99°F; hair loss from tail and tail is cold; very thin with cold extremities; intact adult canines; dental tartar accumulation; no other findings	2.10 kg	
7/24/92			2.14 kg	
8/06/92			2.12 kg	
8/21/92	L.I. Too small to ID; R.I. Too small to ID; L.A. Too small to ID; R.A. Too small to ID	T99⁴°F; no dehydration; no splenomegaly; excellent gum color; mild dental tartar; no other findings; ear tag removed	2.16 kg	
9/18/92		Whole blood transfusion by left saphenous; total volume 12 ml by 25 g IV line with 10 ml sterile saline flush; total volume IP 1.0 ml with 3 ml sterile saline flush; animal began vomiting during mid-transfusion but maintained a steady heartbeat and no evidence of bronchospasm or shock; shock therapy not administered	2.10 kg	Inoculated
9/21/92	L.I. 2 x 3 mm; R.I. 4 x 6 mm; L.A. Not palpable; R.A. Not palpable	T99⁶°F; formed stool with bloody mucus; severe dehydration; place Tang on cage; anal swab not bloody; vaginal swab hemorrhage; no RX; thickened spleen; palpable cranial cervical lymph nodes; very pale mucus membranes and tachycardia probably associated with blood collection Friday	2.14 kg	
9/25/92	L.I. 4 x 7 mm; R.I. 2 x 5 mm; L.A. Too small to isolate; R.A. Too small to isolate	T98⁶°F; skin hot to touch; moderate dehydration (has been on supplemental Tang all week); enlarged spleen; no rash; can actually palpate cranial cervical lymph nodes - so mild enlargement; no oral lesions and normal mucus membrane color; heart and lungs clear; hair loss	2.06 kg	

Animal No.: 266L (HLA 2197)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
10/02/92	L.I. 5 x 5 mm; R.I. 7 x 8 mm	Was unable to collect full amount of blood	2.1 kg	
10/09/92	L.I. 4 x 4 mm; R.I. 6 x 6 mm; L.A. No ID; R.A. No ID	T96^{8}°F; small spleen; no dehydration; excessive dental tartar; pale mucus membranes; 30 ml IV fluids given while blood collected and 20 ml saline given SQ after collection	2.0 kg	
10/15/92	L.I. 6 x 11 mm; R.I. 9 x 11 mm; L.A. 7 x 8 mm; R.A. Not palpable	T100^{6}°F; no blood taken; dry circular focal dermatitis of left mandibular area; dental tartar accumulation; mild dehydration; no splenomegaly	2.12 kg	
10/16/92			2.0 kg	
10/30/92	L.I. Too small to isolate; R.I. 6 x 7 mm; L.A. Too small to isolate; R.A. Too small to isolate	T98^{4}°F; mild dehydration; small spleen; self-epilation of hair from both forearms; no other findings	2.02 kg	
11/03/92	L.I. 4 x 6 mm; R.I. 6 x 7 mm; L.A. Too small to isolate; R.A. Too small to isolate	T99°F; very small spleen; ashen mucus membranes post blood collection (16 ml total); some dental tartar accumulation; no other findings	2.10 kg	
11/30/92	L.I. 4 x 9 mm; R.I. 4 x 7 mm; L.A. Too small to ID; R.A. Too small to ID	T95^{2}°F; shock, suggest less frequent blood sampling; very small spleen; moderate dehydration; very pale mucus membranes; no femoral pulse	2.13 kg	

Animal No.: 266L (HLA 2197)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
12/11/92	L.I. 3 x 3 mm; R.I. No ID; L.A. 6 x 6 mm; R.A. 6 x 6 mm	T97^{8o}F; No rash	2.2 kg	
12/23/92	L.I. 5 x 9 mm; R.I. 3 x 5 mm; L.A. Too small to ID; R.A. Too small to ID	T98^{4o}F; spleen very small; cold extremities once bled with ashen mucus membranes; cyanotic eyelids once sedated; 50 ml SQ fluids administered after bleeding	2.14 kg	
1/04/93	L.I. 6 x 12 mm; R.I. 4 x 4 mm; L.A. Too small to ID; R.A. Too small to ID	T98^{8o}F; mild bilateral submandibular lymph node enlargement; moderate dehydration; small spleen; cyanotic eyelids and ashen gums once bled; extremities very cold once bled; administered 60 ml SQ fluids; lungs clear; tachycardia; probably related to hypovolemia	2.22 kg	
1/26/93	L.I. 6 x 8 mm; R.I. 3 x 7 mm; L.A. 6 x 12 mm; R.A. 3 x 11 mm	T98^{8o}F; faintly palpable left submandibular lymph node; improved mucus membrane color; no dehydration; heart and lungs clear	2.26 kg	
2/09/93	L.I. Too small to ID; R.I. Too small to ID; L.A. 4 x 4 mm; R.A. 6 x 7 mm	T99^{4o}F; cold after blood collection; mild dehydration; administered 100 mL SQ fluids; spleen too small to isolate; very pale mucus membranes; vomiting bile from sedative; no evidence of aspiration	2.2 kg	
2/23/93	L.I. No ID; R.I. 5 x 6 mm; L.A. 4 x 7 mm; R.A. 2 x 6 mm	T98^{6o}F; small spleen; no rash; no dehydration; ashen mucus membranes once bled; heart and lungs clear; no other findings	2.24 kg	

Animal No.: 266L (HLA 2197)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
3/10/93	L.I. 5 x 12 mm; R.I. Too small to ID; L.A. Too small to ID; R.A. Too small to ID	T100^{2o}F; no dehydration; dental tartar accumulation; ashen mucus membranes; no rash; spleen small; heart and lungs clear; cyanotic eyelids once sedated	2.22 kg	
3/23/93	L.I. 5 x 7 mm; R.I. 6 x 10 mm; L.A. Too small to ID; R.A. Too small to ID	T100^{6o}F; heart and lungs clear; no rash; small spleen; no dehydration; very pale mucus membranes and dental tartar accumulation	2.26 kg	
4/06/93	L.I. 4 x 6 mm; R.I. 3 x 7 mm; L.A. Too small to ID; R.A. Too small to ID	T99^{4o}F; moderate dehydration; very small spleen; very pale mucus membranes; heaves and vomiting stomach mucus after sedation; heart and lungs clear without evidence of aspiration of vomitus; no other findings	2.2 kg	
4/20/93	L.I. 3 x 4 mm; R.I. 2 x 5 mm; L.A. Too small to ID; R.A. Too small to ID	T98^{6o}F; mild dehydration; small spleen; symmetrical hair loss from distal tail; mild dental tartar accumulation; excellent mucus membrane color; heart and lungs clear; no other findings	2.25 kg	
5/18/93	L.I. 5 x 11 mm; R.I. 4 x 9 mm; L.A. 3 x 12 mm; R.A. 4 x 12 mm	T100^{2o}F; mild dental tartar accumulation; pale mucus membranes; no rash; no oral lesions; spleen too small to isolate; dry heaves and tachycardia after sedation; mild bronchospasm - all possibly Ketaset related; vomited mucus without apparent aspiration; no other findings	2.26 kg	

Animal No.: 266L (HLA 2197)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
6/01/93	L.I. 6 x 10 mm; R.I. 5 x 10 mm; L.A. 6 x 17 mm; R.A. 8 x 10 mm	T99^{8}°F; no dehydration; no rash; no spleen enlargement; cyanotic mucus membranes post blood collection; heart and lungs clear; no other findings	2.24 kg	
6/15/93	L.I. Too small to ID; R.I. Too small to ID; L.A. Too small to ID; R.A. Too small to ID	T100^{4}°F; no rash; no oral lesions; no spleen enlargement; pale mucus membranes and excessive dental tartar accumulation; no dehydration; heart and lungs clear; no other findings	2.26 kg	

Animal No.: 267L (HLA 2220)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
7/17/92		T97^{6o}F; no lymphadenopathy; tachycardia post bleeding and very stressed during bleeding; pale mucus membranes; dental tartar accumulation; cold extremities	2.26 kg	
7/24/92			2.38 kg	
8/06/92			2.54 kg	
8/21/92	L.I. 2 x 3 mm; R.I. 4 x 9 mm; L.A. Too small to ID; R.A. Too small to ID	T100^{6o}F; elongate spleen; no dehydration; dental tartar and some mild gingivitis; no other findings; ear tag removed	2.50 kg	
9/16/92	L.I. 5 x 8 mm; R.I. 4 x 7 mm; L.A. Skin fold only; R.A. Skin fold only	T98^{4o}F; spleen not enlarged; mild dental decay of two lower premolars; no dental tartar accumulation; hydration okay; pale mucus membranes prior to bleed	2.53 kg	
10/15/92			2.58 kg	
11/18/92			2.7 kg	
11/23/92	L.I. 3 x 6 mm; R.I. 6 x 11 mm; L.A. Too small to ID; R.A. Too small to ID	T99^{4o}F; both axillary lymph nodes are too small to measure; dental tartar accumulation; small bits of blue rubber ball trapped in teeth; no other findings	2.66 kg	
12/17/92			2.62 kg	

Animal No.: 267L (HLA 2220)

Date	Lymph Node Dimensions	Clinical Abnormalities	Weight	Comments/ Inoculum
01/14/93	L.I. 2 x 2 mm; R.I. 3 x 5 mm; L.A. No ID; R.A. No ID	T101^{4o}F; small bruise at 48 hours from left eye TB test; small well-defined spleen; very faint enlargement of left submandibular lymph node; no oral lesions; excellent heart and lung sounds	2.78 kg	
02/12/93			2.84 kg	
03/12/93			2.95 kg	
04/13/93	L.I. 5 x 10 mm; R.I. 6 x 9 mm; L.A. 4 x 7 mm; R.A. 6 x 9 mm	T101^{4o}F; well-developed adult canine teeth; excellent mucus membrane color; no dental tartar accumulation; no dehydration; thickened spleen; heart and lungs clear; no other findings	3.08 kg	